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HYPNOSIS AND PSYCHOSOMATIC MEDICINE¹

by Joseph H. Morton, M.D.²

The use of hypnosis provides a remarkable opportunity to study and evaluate the psychosomatic interrelationship in the diagnosis and treatment of illness. It can be of great value whenever an emotional component is present, whether this emotional component is the etiological factor or the result of organic disease.

It has been postulated that the original fear or anxiety creates a tension which produces unpleasant symptoms by way of emotional stimuli mediated through the autonomic nervous system. These unpleasant symptoms in turn cause more fear or anxiety, and thus a vicious cycle is set up. In this way long-standing emotional stress can alter pituitary function according to environmental and emotional needs, and can influence its tropic hormones to induce widespread somatic changes in distant parts of the body (1-4). When this emotional stress arises from unconscious conflicts, the patient is unaware of the cause of his symptoms and is consequently unable to cope with them.

Conversely, emotional stress may arise from physiological causes, which may significantly affect the feelings, moods, and attitudes of the patient. There are numerous conditions seen by the general practitioner (or even the psychologist) in which the primary illness is physiological, although the emotional symptoms may dominate the picture. Two such common conditions, for example, are premenstrual tension and metabolic insufficiency. In the former, the internal tension and emotional instability may become so marked as the woman nears her menstrual period

that the clinical picture may simulate a severe psychoneurosis. By correcting the hormonal imbalance and the disturbance in electrolyte and sugar metabolism, the distressing symptoms can be prevented or relieved. Moreover, this pathetic picture with its marked psychic manifestations has been reproduced by hormonal injections (5, 6).

In metabolic insufficiency the daily stress created by demands on these hypometabolic patients can cause marked fatigue, tension, depression, or despair. By increasing the metabolic rate with the administration of liothyronine, resistance to stress may be increased and the patient made more capable of facing his daily tasks (7).

One must also remember that psychological and physiological conditions may co-exist in the same patient, and unless the physician is alerted to this possibility he may overlook an organic condition in the patient who repeatedly presents a multiplicity of functional complaints.

Because of the particular responsiveness of metabolic and endocrine target organs to emotional stimuli, the psychosomatic patient may frequently express anxiety by functional digestive disturbances, cardiovascular or respiratory symptoms, symptoms relative to the endocrine glands and to the central nervous system. The presenting complaint, therefore, whether it be cardiospasm, hypertension, asthma, obesity, sterility, or sexual incompatibilities, need not necessarily represent the basic underlying disturbance.

By means of hypnotic recall and regression the onset of the symptomatology can be reproduced and the differential diagnosis clarified, often in a matter of minutes. The patient is regressed to a point in the past when the present dysfunctioning organ was func-

¹ Presented in part at the annual meeting of The American Society of Clinical Hypnosis at Chicago, October 9, 1959.

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tioning normally. From this point we can follow the onset and course of the present illness. This procedure permits better and more detailed study of the psychodynamics. It gives the physician a significant insight into the motives of human behavior and provides better understanding of altered physiological function and the mechanics involved in the production of symptoms.

CASE 1

An excellent example of this is a 41-year-old patient who has been under our care for the past 12 years. She was originally referred because of three miscarriages, two of them occurring in the sixth month of pregnancy. No gross pathological findings could account for the miscarriages.

An endocrine study revealed an estrogen-progesterone imbalance and a mild hypothyroidism. These conditions responded to medication, and she was permitted to conceive. Throughout this pregnancy there were recurrent signs of threatened abortion, such as staining and cramps and changes in the vaginal smears.

She also complained of nervousness, tension, chest pains, and epigastric distress. It soon became apparent that an underlying emotional factor was operating, but despite frequent discussions and repeated assurance the specific inciting emotional cause could not be uncovered. A very significant and interesting incident occurred. An appointment was made for the same day on which she had twice miscarried. The patient refused to leave her home on this important day, but it was insisted that the appointment be kept. Despite frantic phone calls from the patient, her mother, her husband, and even the obstetrician, she was not permitted to cancel the appointment. She finally arrived with an angry and resentful entourage. Fortunately, at long last, that eventful day finally passed without mishap. She subsequently delivered a full-term, healthy son without any complications and had an uneventful postpartum recovery.

Four years later she returned because she was pregnant again and wanted to be sure that there would be no complications. She came in only a few times during this pregnancy and eventually delivered a premature 3 lb. baby girl. The baby survived.

She returned again five years later because of an increase in her nervousness, tension, depression, hypoglycemic fatigue,

and recurrent severe pains in the chest and epigastrium. The latter had twice been diagnosed as peptic ulcer, but the x-rays and electrocardiograms were negative.

Again she responded partially and temporarily to antispasmodics such as probanthine, belladonal, and intravenous methamphetamine. At this time hypnosis was suggested, and she was able to enter a deep trance by the third session. In age-regression she re-lived an engagement with a former boy friend, who was killed in the war. She poured out 15 years of anguish in as many minutes. Because she was not sure she loved him and because she became involved and enmeshed in an engagement and an impending marriage that she was not sure that she wanted and did not know how to evade, she developed a terrific guilt after his death. She also revealed in this trance that she had named her son, who was born five years later, after the former boy friend.

After several hypnotic interviews all her symptoms disappeared, she no longer needed any medication, and she stated that she felt better than ever before.

The clinical diagnosis often depends much more upon the history than it does upon the physical examination or laboratory studies. Yet it cannot be stressed too strongly that a thorough physical examination, including all necessary tests and diagnostic procedures, is most essential to rule out organic disease. Even so, negative organic findings are not enough to warrant a diagnosis of functional disease. Such a diagnosis must be established on its own characteristics as well. The physician must therefore in determining the etiology and treatment consider and evaluate all possible factors involved, such as the physiological, psychological, biochemical, and social. He should question the patient about the onset and progress of his symptoms and about the most intimate details of his personal life, including his eating and sleeping habits, and his business, social, and sexual behavior.

In our use of hypnosis each session is carefully planned. Usually some symptom or some anxiety-producing inci-

dent or even a chance remark by the patient is selected as the basis for investigation in hypnosis. When there is no apparent clue to pinpoint the problem, the patient is given the opportunity in age-regression to select his own traumatic incident in the past.

In the following case an anxiety-producing incident was made the starting point in the hypnotic investigation.

CASE 2

C.K., a 36-year-old singer, consulted us because of an endocrine condition. An interesting remark in her history was that she had recently terminated her visits with an analyst because she developed such anxiety while lying on the couch that she was unable to relax or communicate with him. In age-regression it was suggested that she abreact some incident that was associated with a couch. She then recalled that at the age of eight years she had fallen asleep on the couch in the living room and she was suddenly awakened by the return of her father and older brothers from the hospital. After one look at their faces she realized that her mother had just died. Another incident occurred a year later. She was climbing over the back of the couch, a practice repeatedly forbidden by her father, when she fell on the couch, and the point of the pencil in her mouth penetrated the soft palate. She suffered for two days before she dared to admit the cause of her pain or her difficulty in eating.

It was suggested that the patient was now aware that her anxiety stemmed back to these consciously forgotten incidents in her childhood and had no connection with her present life. She could, therefore, now lie down on any couch whenever she wished. As the hypnotic interview continued, she spontaneously arose from her uncomfortable chair a few minutes later and lay down on the couch.

CASE 3

A.R., a 22-year-old actress, had a recurrent pain in the right lower abdomen for the past four months. It had been diagnosed as a twisted ovarian cyst, and after an acute attack of pain the preceding day a gynecologist advised immediate surgery. The family physician then requested an endocrine consultation.

When first seen the patient was calm and apparently free from anxiety and depression. A detailed history elicited symptoms

suggestive of hypometabolism. In describing her abdominal pain the patient said that lately it had been constant and was markedly aggravated by attempts at coitus, because her husband's penis was too large.

The pertinent findings on physical examination were an enlarged tender right ovary and a less tender but palpable left ovary. The blood count, sedimentation rate, protein-bound iodine, and urine were normal, and the basal metabolic rate was low.

Vaginal and cervical smears showed an anovulatory cycle with poor and long continued follicle ripening. The clinical impression was multiple follicular cysts with possible recurrent torsion of the right ovarian pedicle.

Because there had been no difficulty or pain on insertion of the Sims speculum, her chance remark about the large size of her husband's penis assumed a new significance.

The patient consented to a hypnotic interview and readily entered a trance. She then revealed many past dreams associated with the fear or desire for death. She had seriously attempted suicide on three occasions, for which she had been hospitalized. She drank heavily, and liquor increased her depression.

Further questioning revealed a resentment towards her father dating back to childhood. She suffered from a peptic ulcer five years ago, and more recently she had had a satisfactory premarital affair with an older man without any pain. She had known her husband for the past eight months and was married for four weeks. Her hostility towards him was definite and strong.

Because of her self-destructive tendencies and because an operative emergency was not present, surgery was postponed. Psychiatric referral was vehemently refused. After a few visits, which included endocrine treatment as well as superficial hypnotherapy, a clinical improvement was noted with partial regression of the ovarian cyst and complete relief of pain. Some improvement in the domestic situation was indicated by a decrease in hostility towards the husband and complete relief from dyspareunia.

Supportive therapy was continued until a transference to a psychiatrist was accomplished.

COMMENT: This case illustrates three points:

1. The use of a chance remark as the basis for the hypnotic interview.
2. The co-existence of organic and emotional conditions.

3. The use of hypnotic suggestion to facilitate a patient's acceptance of psychotherapy.

The use of hypnosis solely for the removal of symptoms by direct suggestion, without knowing how badly the patient needs his symptoms or disability, may be harmful. Such removal may leave the patient so vulnerable as to necessitate his acquiring a new and usually more severe defense. On the other hand, if the basic neurotic cause of the illness has long been forgotten and the neurosis is no longer active, or if the patient's awareness of the psychological causes has not resulted in a clearing up of the symptoms and the latter persist from habit or because of the induced vicious cycle of fear and tension, the patient no longer needs his disability, and the results from the hypnotherapeutic removal of these symptoms are often dramatic.

The following case illustrates the need for understanding the reason for a symptom before removing it through hypnosis.

CASE 4

A 17½-year-old white female was referred by her family physician because of progressive, long-standing obesity, secondary amenorrhea, depression, chronic fatigue and insomnia. She had been unsuccessfully treated by many physicians for her obesity, and for the past year has had weekly sessions with a psychologist without improvement apparent to the patient.

Physical examination and endocrine study revealed a hypometabolism with a mild functional hypoglycemia, moderate chronic cystic mastitis, and a generalized obesity most marked in the pectoral girdle area. She was 5 ft. tall and weighed 182 lbs. Blood pressure was 120/74, pulse 76. Vaginal examination and smears for ovarian hormone evaluation were not permitted.

Further questioning revealed a marked resentment towards her family, a need to sleep with a toy dog, and no dates because of a fear of boys.

Under the guise of relaxation she was gradually coaxed into a trance. She then revealed that while baby-sitting at the age of 12 years she was raped by two older lo-

cal boys. For five years she did not divulge her secret to anyone. When asked about the relationship of this tragic incident and her obesity, she related how boys would whistle at her when she walked with a slim, attractive girl friend. "Can you imagine what would happen if I were thin like her?" Her psychologist had not been told of the traumatic incident.

Although in subsequent visits she consistently resisted hypnotic induction, she did show temporary improvement, as indicated by a decrease in depression and fatigue and some loss of weight. How much of this was due to medication and diet and how much was due to a desire to please the doctor is debatable. She finally agreed to referral for psychotherapy but vomited after the first session, and only after much persuasion did she reluctantly return to the therapist.

After 13 weeks of psychotherapy alone, the therapist reported that the patient showed considerable symptomatic improvement accompanied by limited insight. She had lost 20 lbs. in the last four weeks and presented marked improvement in her self-esteem. Her sex phobia had almost disappeared, so that she now tolerated and even sought the company of boys, although she was still afraid of any closeness. For the second month her menstrual period had been regular and normal. She was reinstated in college, and is now passing all subjects and feels that her professors (who are men) want her to succeed. Her family relationships are better, although the mother unknowingly interferes with the patient's progress by making her dieting unnecessarily difficult and by discouraging her from going bowling with the girls, etc.

COMMENT: In this case it would have been unwise, if not actually disastrous, arbitrarily to remove her symptoms by hypnotic suggestion without realizing that the patient needed her obesity as a defense mechanism against men and her amenorrhea as an unconscious denial of her femininity.

In the next case, however, the removal of the symptoms was justified.

CASE 5

This 15-year-old girl had a girdle obesity which had been progressive for the past year. She had lost as much as 30 lbs. by a strict self-imposed diet, but she invariably regained the lost weight. She also complained of "laziness" and late-afternoon fatigue and a marked sensitivity to cold.

Physical examination revealed a moderate hypothyroidism and hypometabolism, and she responded readily to hormonal therapy, anorectic drugs, and a low caloric diet.

After five weeks of diet and drugs she lost 12 lbs., and her hips and thighs had slimmed down considerably. At this time her mother expressed her satisfaction and added that if the daughter could only stop "blinking" everything would be perfect. This "blinking" had been progressively worse for the past year and had been diagnosed by a neurologist as "nerves."

With her consent she was rapidly placed in a very deep trance and was regressed to the first time this habit occurred. She was viewing herself in the mirror after a shower, and suddenly her eyelids became so heavy that she could hardly keep her eyes open.

"Why?" she was asked.

"I don't want to see my ugly figure," she answered.

"Now you are back in Dr. Morton's office and you have lost some weight and inches around your hips and thighs. Aren't you pleased, Dorothy?"

"Oh, yes!", she said.

"Well, I can tell you that Dr. Morton is also very pleased to see how slim and attractive you are becoming. Wouldn't you like to watch your figure becoming slimmer and lovelier?"

"Oh, yes."

"All right—fine. But you can't do it with your eyes closed, can you?"

The patient was then awakened. During the remaining weeks of treatment the "blinking" did not once recur.

COMMENT: In this case the basic anxiety was brought into consciousness through hypnotic recall and the patient was made aware that the unconscious motivation need no longer operate.

The following case indicates the use of the hypnotic interview in establishing the correct diagnosis.

CASE 6

J.P., a 31-year-old housewife, complained of increasing depression for many years. This depression was associated with irritability, anxiety, crying spells for no apparent cause, insomnia, poor concentration, lack of mental alertness, hypersensitivity, and profound fatigue with occasional periods of frenzied activity. She was unable to cope with routine daily problems. She had

a desire to withdraw from people and was at times afraid to leave her house. The past history was non-contributory. She had had a short period of psychotherapy without apparent benefit. She poorly tolerated sedatives and tranquilizers. She was married and had two children.

Routine physical and laboratory examinations were essentially normal.

She consented to hypnosis and eventually entered a medium deep trance. In hypnotic recall it developed that in her teens and twenties these symptoms regularly recurred for about ten days preceding menstruation and disappeared dramatically following the onset of the menstrual flow. She did not associate her mental and emotional symptoms with menstruation. For the past two years the symptoms had persisted to a lesser degree throughout the entire cycle. She feared that she would lose her sanity.

Following this hypnotic interview, the diagnosis of premenstrual tension was confirmed by vaginal smears and endometrial biopsies, blood and urine chemistry, and glucose-tolerance tests. She responded readily to treatment with medication, diet, and reassurance, and after two months stated that she felt better than ever before.

COMMENT: This case illustrates that personality changes not only occur in organic conditions but may be so conspicuous as to dominate the clinical picture. Although we had recognized and had successfully treated similar cases in the past, the additional use of hypnosis was of unquestionable value in rapidly establishing the proper diagnosis and thereby shortening the period of therapy.

Because of lack of space, some interesting cases of sterility that emphasize the value of hypnosis in differentiating between organic and psychogenic sterility are omitted. It can be pointed out, however, that although psychogenic sterility is not infrequent, the diagnosis may be difficult if the emotional disturbances are deeply regressed. Anxiety, the most common basic cause of psychogenic sterility, may arise from the fear of pregnancy, a rejection of the feminine role, a reluctance to renounce a career, immaturity, or hostility towards the husband. Emotional disturbances, acting through the autonomic nervous system, may alter the

menstrual flow or even suppress ovarian function.

The following case is reported because it presents some features not often encountered in hypnotherapy.

CASE 7

M.G., a 26-year-old male executive, has had since childhood a generalized and severe rash over the face, body, extremities, and penis. He also suffers from frequent tension headaches. He had been treated by many physicians with only temporary relief, if any. The diagnosis was consistently neurodermatitis. After several weeks at a well known midwestern clinic, the diagnosis was confirmed, and he was told that he was not psychiatric material. He is married and has one child.

He was an unconsciously difficult subject for hypnosis. However, with the aid of intravenous methamphetamine as a potentiating agent, he was eventually brought into the hypnotic trance.

In a medium deep trance he related a long-standing personality inadequacy. He feared and was dominated by his father, with whom he still worked. He recalled his inability "due to some kind of block" to consummate past love affairs, although opportunity, desire, and potency were present. Further questioning on this subject caused obvious distress, which invariably and spontaneously terminated the trance. On occasion, he was indignant and resentful on awakening.

He developed limited insight with repeated hypnotic sessions. He apparently became aware of some past etiological trauma, although he refused to transmit his knowledge to the therapist. He improved both subjectively and in his work efficiency, but the rash was only partially and temporarily improved. At this point it was suggested in hypnosis that it might suffice to limit the rash to his left little finger, as a guilt manifestation. He refused to accept this. Nor would he accept a limitation of the rash to his left hand. Finally, however, he agreed that a rash limited to both hands would be adequate for his purpose. By evening the rash on his body had faded and in a day or two was gone. The rash on both hands still persists and is aggravated by emotional upsets. On these occasions, a physician in his home town, to whom a transference has been made, easily controls and alleviates the exacerbation through hypnosis.

COMMENT: This case illustrates the following interesting points:

1. The hypnotized patient cannot be compelled to reveal or discuss anxiety-producing material against his wishes.
2. The patient's awareness or recognition of repressed material may be of some therapeutic value even if the physician does not learn the traumatic incident.
3. It is possible to "bargain" with a hypnotized subject.

DISCUSSION

Hypnosis has been a very effective and desirable aid in our diagnosis and treatment of psychosomatic illness.

I hypnotize about three or four patients daily, and my unusually high percentage of successful inductions (almost 90%) is attributed to the following reasons:

1. A thorough medical work-up precedes all attempts at hypnotic induction.
2. After the complete work-up, the candidates for hypnosis, where it is indicated, are carefully selected by susceptibility tests and by "hunch."
3. An intravenous injection, methamphetamine hydrochloride, is frequently used as a pre-hypnotic antispasmodic to facilitate the induction of the trance.
4. An additional charge is made for the use of hypnosis, as it would be made for any other procedure that required additional time and specialized skill.

The only exceptions to the above routine are occasional requests from colleagues to use hypnosis to produce anesthesia or to relieve anxiety and tension in cases of surgery, obstetrics, inoperable malignancies, or medical emergencies.

To accept patients for hypnosis merely at their insistence is foolhardy, unless the doctor specializes in miracles. The doctor who undertakes to hypnotize a patient because the wife says, "Make him stop smoking," or because

a husband says, "Make her stop eating," deserves to eventually get a husband who will say, "Make her stop talking," or even a wife who says, "Make him stop breathing!"

The pre-hypnotic intravenous injection mentioned above is methamphetamine hydrochloride, a sympathomimetic drug that is similar in some ways to both amphetamine and ephedrine. It acts as a cortical stimulant to lessen tension and anxiety, combat fatigue, increase mental clarity, increase efficiency, and relieve skeletal- and smooth-muscle spasm. It raises the blood pressure in the hypotensive patient but paradoxically tends to lower the blood pressure and pulse in essential hypertension and functional tachycardia on an emotional basis.

Initially the patient responds to the intravenous methamphetamine by an induced feeling of euphoria (or in some very tense patients by spontaneous crying without apparent cause) and a dramatic relief of tension. Side reactions are rare, and when they occur are mild and transient.

Since hypnosis to some patients represents a new and potent procedure that threatens their voluntary and conscious control, they often react with fear and anxiety. The intravenous administration of methamphetamine usually relieves the anxiety and tension in a matter of minutes, and the previously reluctant or fearful patient enters the hypnotic trance without much, if any, resistance.

The details of the use and action of this drug have been reported elsewhere (8, 9).

No discussion on the use of hypnosis in medical practice would be complete without a word of caution.

The non-psychiatric physician should be aware of his limitations, and in the best interests of his patients, should restrict himself to his own field of competence. In other words, he should

not do in hypnosis what he would not attempt without hypnosis. He should refer patients for psychological evaluation or treatment when doubt exists as to the importance of the emotional factor, when serious depressive or suicidal tendencies are suspected, when a serious neurosis appears to be the primary illness, or when there is little or no response to medical therapy.

Since we routinely tape-record all our planned hypnotic sessions, we have the additional advantage of imposing upon our psychologically trained colleagues for comment and constructive criticism.

It should also be remembered that age-regression is always a vivid and meaningful experience for the patient, and every means should be utilized to safeguard the patient's emotional and physical well-being.

We usually suggest to all our patients while in hypnosis that they will resist all future attempts to hypnotize them unless it is done by a qualified hypnotist and for their benefit.

Many problems, most of them of minor concern, occasionally occur during the extensive use of hypnosis. One which may become serious is the possibility of uncovering deeply repressed, traumatic material. This may cause a severe or even dangerous physical reaction or may possibly precipitate an acutely agitated state or even a psychotic episode. At the first indication of trouble, the regressed scene is immediately changed to a more pleasant one, which is maintained until the patient becomes relaxed and happy. It is also amazing that the simple suggestion that the subject remember, on awakening, only as much as he would like or can accept is usually adequate to prevent any acute post-hypnotic emotional distress.

Hypnosis frequently facilitates the recognition of a masked depression or a repressed neurosis or psychosis. Hyp-

nosis also enables the physician more easily to transfer an otherwise reluctant patient to the psychiatrist.

In most instances, however, the patient's emotional disturbance is of the ordinary variety and can be adequately handled by the psychologically oriented physician. In these cases reassurance and suggestion in a light or even hypnoidal trance rapidly establishes rapport. The concomitant use of medical and superficial hypnotherapy often has a synergistic action that increases the effectiveness of both. Relieving the associated anxiety may per-

mit less medication, and, conversely, easing the psychosomatic symptoms medically may enhance the suggestions and reassurance.

With the official sanction of the American Medical Association and the ready acceptance of the general public, the prognosis for hypnosis as a medical and psychological procedure is good. But we must remember that its indiscriminate application will accomplish little, either for the patient upon whom it may be unwisely or incompetently used or for the future survival of scientific hypnosis.

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AN INVESTIGATION OF HYPNOTIZABILITY AS A FUNCTION OF ATTITUDE TOWARD HYPNOSIS¹

by Irving I. Selter, D.D.S., M.A.²

Hypnosis has been described as an extreme of positive response to suggestion (6). Weitzenhoffer (8) believes that both waking and hypnotic suggestibility lie on a single continuum of suggestibility. The word hypnosis has been used interchangeably with hypnotism, hypnotic states, trance, and trance states. Various depths of hypnosis have been described. The depth of trance achieved by a subject is the degree of suggestibility of the subject as measured by his responses in comparison with some proposed scale. Most scales contain the following more or less arbitrary "depth" categories.

Insusceptible or refractory or
resistant
Hypnoidal stage
Light stage
Medium stage
Deep stage

It is well known that subjects who are refractory with one operator may respond to another and become hypnotized. Subjects who may fail to respond to an operator at an first attempt may be susceptible at a later trial. The question arises as to what is involved in the first hypnotization of a previously refractory subject.

Using hypnosis clinically in the practice of dentistry, and in the teaching of hypnotic techniques, this writer found his results approximating those of Hull

(3): insusceptible and hypnoidal, 20%; light, 25%; medium, 35%; deep, 20%. Although a co-operative approach was used basically, authoritative measures were also used.

In several demonstrations of relaxation procedures, volunteer subjects cooperated readily to instructions for relaxation, but rejected the suggestion that they volunteer for "hypnosis." The reason most frequently given for the refusal was that they had previously been subjects for a "hypnotist" and that attempts to hypnotize them had failed.

The subjects were told that previous failures were possibly due to conscious or unconscious resentment of the idea of being hypnotized by another person. They were asked if they would be interested in learning how to hypnotize themselves. They agreed to co-operate on this basis, and in general were found to be excellent hypnotic subjects.

A modified approach was employed subsequently. Instead of stating that the subjects were to be hypnotized, the author stated only that he would teach the subject how to enter hypnosis. With this technique, emphasizing permissive rather than directive phrasing, the number of insusceptible subjects decreased, and more subjects entered deeper stages.

This led to the hypothesis that hypnotizability is a function of the subject's attitude toward hypnosis. Subjects who had, on one or more previous occasions failed to enter hypnosis, while working with an experienced hypnotist, were studied. No attempt was made to isolate all possible variables which might affect resistance to hypnosis. The attempt was made to study the effect of certain positive verbalizations used in preparing the sub-

¹ This paper is part of a research thesis submitted to the faculty of the College of Arts and Sciences at Roosevelt University in candidacy for the degree of Master of Arts in the department of psychology. Donahue L. Tremaine, Ph.D., was chairman of the committee which read the thesis and was adviser for the project.

² 7407 W. Irving Park Road, Chicago 34, Illinois.

ject for induction of hypnosis. This verbalization was designed to create for the subject a favorable attitude toward hypnosis. In addition, there was a study of the reactions of three elementary classes listening to a tape-recorded hypnotic induction hypnotic induction verbalization after a different introduction had been given to each class.

The following hypotheses were examined:

Hypothesis 1: When an experimental situation is so structured that a favorable attitude toward hypnosis is actively encouraged, a higher incidence of hypnosis will be found than in a situation in which no such attempt is made.

Hypothesis 2: When an experimental situation is so structured that the subjects are told that they will be taught to hypnotize themselves, a higher incidence of hypnosis will be found than in a situation in which the subjects are told that they will be hypnotized.

THE EXPERIMENTS

Design to Test Hypothesis 1

At each of eight seminars on hypnosis held in different cities of the United States and Canada, a group of six subjects who had previously failed to enter hypnosis while working with an experienced hypnotist were selected by lot from those volunteering for a demonstration. As determined by random selection, four of the groups constituted the experimental groups and received preparatory verbalizations before the formal induction procedure was begun. The four control groups did not receive the preparatory verbalizations. A standardized group induction procedure, as explained below, was used for all groups. Criteria for depth of hypnosis were as follows:

light stage—glove anesthesia
medium stage—glove anesthesia
plus arm catalepsy
deep stage—posthypnotic retention of either
glove anesthesia
or arm catalepsy

Criteria tests were made by the experimenter (E). In addition, judgments of hypnotic depth were made by a psychiatrist (Dr. M. H. Erickson) and the observers in the audience, all of whom were physicians, dentists, or psychologists.

To compare the findings of White (10) and Ventur et al. (7) with data to be obtained from our subjects, all of the latter, prior to the induction procedure, were presented with card 12M of the Thematic Apperception Test (TAT) and were requested to write a story about what they saw in the card. (The results of this procedure are to be published separately.)

After the completion of the experiment, the Ss and E withdrew to a private room, where the Ss were asked to complete a data sheet and were given instructions on the filling out of a Minnesota Multiphasic Personality Inventory (MMPI) answer-sheet. This they were to accomplish at their leisure and to return to E before the last session of the seminar. Relationships between personality factors on MMPI and hypnotizability were to be examined and these findings compared with the results of other investigations. (These data are to be published separately.)

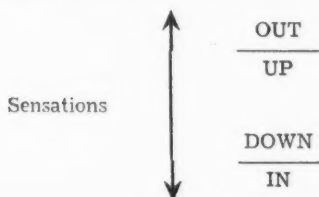
Experiment 1

The experiment was conducted as part of an all-day program on hypnosis. At each seminar during a recess six or more individuals, who stated that previous attempts to hypnotize them had failed, met with E. On only one occasion were there as few as six volunteers. In the instances of more than

six volunteers lots were drawn to select the subjects. The group was shown card 12M of the TAT. Ss were given the standard instructions of making up a story about the picture on the card. When they had written their stories, they were dismissed with instructions to appear on the platform as a group immediately following the recess. After the recess the subjects were seated in a row on the platform. Only the experimental groups were given a pre-induction verbalization. This was designed to give the Ss an understanding of some of the factors which mitigated against the successful induction of hypnosis and to create for them a favorable attitude toward hypnosis.

EXPERIMENTAL GROUPS' PRE-INDUCTION
VERBALIZATION
Experiment 1

Soon I am going to ask you to close your eyes, so that you may pay attention to the things I will have to say, without being distracted by visual objects. Before I do this, I would like to have you pay attention to this diagram [on a blackboard].



Notice the arrow marked "Sensations." See that the *up* leads to *out*. Observe that the *down* is followed by *in*. What this means, you will understand shortly. Now please close your eyes and just listen. Please keep them closed until I ask you to open them.

Several factors have already been mentioned which contribute to a patient's readiness to be hypnotized, but at this time we might equally profitably consider some of the factors which may detract from a patient's readiness to be hypnotized.

Very commonly, especially when the patient is a doctor, regardless of his field, there is a tendency to analyze what is happening when hypnosis is attempted. The doctor wants to do two things at once. He wants to learn how to enter hypnosis and

at the same time to figure it out, so that he may use both aspects of the experience to advantage when he is the hypnotist. These two objectives are mutually exclusive. They cannot be achieved at the same time. In your mind's eye, observe the diagram you looked at a moment ago. To enter hypnosis, one must lessen his sensory input and progressively reduce the amount of attention he pays to everything other than the voice and instructions of the operator. He can then go down and in to hypnosis. When he tries to analyze, he increases his thinking and reacts in the same manner which takes one up and out of hypnosis. By deferring the analyzing until later, one may eliminate a significant barrier to hypnosis.

Some people fail because they try too hard. They are overactive. If you pay attention effortlessly, hypnosis will be attained more easily.

Others fail because they expect some force or power coming from outside themselves to compel their actions. The hypnotist has no such powers. Nothing happens just because he says so. Nothing happens unless the patient enables it to happen or allows it to happen. The hypnotist may make a suggestion, but the subject has within himself the ability to reject or to accept the suggestion in accomplishing hypnosis. The patient must be willing to cooperate by allowing himself to make things happen or to let things happen.

There are patients who fail to enter hypnosis because of a conscious or unconscious unwillingness to be hypnotized by another. These same people readily enter hypnosis when they work with someone who undertakes not to hypnotize them but to show them what they need to do to achieve hypnosis.

I have not hypnotized anyone in years, but I am able to teach patients what they need to know and to do to enter hypnosis. Ever since I have substituted teaching for hypnotizing, a greater number of my patients have learned to enter hypnosis than before.

If you are here to prove that you cannot be hypnotized, or that I cannot hypnotize you, we are wasting time. That can be conceded in advance.

If you are willing to forego analysing until later, if you are willing to pay attention effortlessly and to allow things to happen, if you are willing to follow my instructions in a time-tested teaching induction technique which has been very successful, even in resistant patients, I promise that you will enjoy this. If, at any time, you are dissat-

ified for any reason and want to discontinue your participation, you may.

For those who wish to participate on the basis outlined, please remain in your chairs.

The control groups were not given this pre-induction verbalization. They were told only, "All you have to do is follow my instructions." A standardized induction procedure was administered to both groups. This was almost identical in phrasing to that of the Tape Recorded Induction Verbalization used in the testing of Hypothesis 2 (see below). When the verbalization was completed, tests for trance-depth were made on each subject (one at a time) as follows. The left hand was tested for hypersensitivity with a sharp knife point. The right hand was tested for anesthesia with the same knife point. Non-verbally stimulated catalepsies were attempted by gently lifting at the subject's wrist with the E's thumb and index finger. If the hand and arm did not remain suspended, the following verbalization and activity were accomplished. "I lift your heavy hand. I drop it and it falls. I lift it again. But this time it does not have to fall, does it? It really doesn't." After observing the Ss' responses, the Ss were instructed to arouse, maintaining such catalepsies and analgesias as had developed. After all the Ss had aroused, any posthypnotic catalepsies were observed, and tests were again made individually for analgesias.

After the experiment E and Ss withdrew to a private room. Here subjective reports were made by the Ss as to their experience. Attempts were made to elicit reasons for previous failures and present successes or failures. The Ss were instructed in the filling out of an MMPI answer sheet which they were to complete and return before the end of the seminar.

After the fifth of the experimental sessions, an inspection of the data indicated that there was not likely to be a significant difference between the

experimental and control groups. The indications were that, if similar data were to be accumulated in the remaining experimental sessions, the data would not support Hypothesis 1. However, it was decided to complete the experiment, inasmuch as there was a likelihood of obtaining some data which might be at variance with data reported elsewhere. The following hypothesis was then constructed and an experiment designed to test it. *Hypothesis 2:* When an experimental situation is so structured that subjects are told that they will be taught to hypnotize themselves, a higher incidence of hypnosis will be found than in a situation in which the subjects are told that they will be hypnotized.

Design to Test Hypothesis 2:

In experiment 1, the induction verbalization varied slightly from group to group. It was decided to hold this factor constant by insuring identical verbalizations. A tape-recorded induction verbalization as described below was prepared. Three classes in elementary psychology, which met on the same morning on successive hours were informed by the instructors that, on the appointed day, the instructors would be absent and that they would be addressed by a member of the faculty, and they were advised to be present, inasmuch as they might be quizzed on the subject-matter. All the classes were to be exposed to the same tape-recorded induction verbalization. Preliminary verbalizations which preceded the induction, however, would differ. One class was told that the students would be taught how to relax. In another class, the students were told that they would be taught to hypnotize themselves. In a third class, the students were told that they would be hypnotized. As in experiment 1, the subjects were shown TAT card 12M prior to the experimental situation and were requested to write a story about

it. A drawing of lots determined that the first class would be the relaxation class, that in the second class the students would hypnotize themselves, and that in the third class the students would be hypnotized.

Experiment 2

E met with the three classes and made the following initial statement to each:

"I am Dr. Sexter of the Lectures and Institutes Committee here at Roosevelt University. Your instructor has given me this period to discuss with you some matters of importance in a special area of psychology. It happens that I am doing a study in this area. Perhaps the best way for me to put this subject over to you is to let you help me in this study. Anyone who objects is free to leave."

The students were then asked to look at TAT card 12M and to write a story about it. After this E made the following different statements to each class:

(TO THE FIRST CLASS.) The area of interest referred to previously is relaxation. How many saw a relaxation situation in the picture? [Pause for a show of hands.] The best way to learn about relaxation is to follow a routine. All you have to do is listen to the tape recorder and follow instructions.

(TO THE SECOND CLASS.) The area of interest referred to previously is hypnosis. How many saw hypnosis in the picture? [Pause for a show of hands.] The best way to learn about hypnosis is to enter the hypnotic state. Is there anyone who would object to learning how to enter hypnosis through his own efforts by hypnotizing himself? [No objectors.] All you have to do is follow the instructions on the tape recorder. Any time you do not like what goes on, you can call the whole thing off.

(TO THE THIRD CLASS.) The area of interest referred to previously is hypnosis. How many saw hypnosis in the picture? [Pause for a show of hands.] The best way to learn about hypnosis is to enter the hypnotic state. How many have an objection to being hypnotized? [Two females raised their hands. On being told that they would have to leave, they decided to stay and participate. They were identified later as having entered medium hypnosis]. I propose that we hypnotize you by having you

pay attention to this recording on the tape recorder. All you have to do is follow the instructions.

After their consent was obtained, all classes listened to the same tape-recorded induction verbalization. Following this, the students were tested for incidence and depth of hypnosis. Criteria for depth of hypnosis were the same as those used in the experiment to test Hypothesis 1.

TAPE-RECORDED INDUCTION VERBALIZATION (EXPERIMENT 2)

You are now seated comfortably in your chairs. Your feet are flat on the floor. Your arms are on your thighs. Your eyes are up at the spot which has been selected, and you can start breathing slowly and deeply. Proper breathing is related to complete relaxation. Take a slow deep breath and let it out slowly, paying attention to how comfortable you can feel and how comfortable you can be when your breathing comes slowly and regularly. Now take a deep breath and hold it. Hold it until I count to five. Pay attention to how tight your abdomen is. Hold it, one. Hold it, two. Three. Four. Five. Now let it go, and you can really begin to appreciate how nice and comfortable it is just to breathe properly. So continue to breathe slowly and regularly till you find that rate of breathing which is the same as that rate of breathing which you use when you are asleep. That's the most relaxing rate. Let your arms become limp and loose. Let your legs become limp and loose. As you relax more and more, you will soon be able to feel feelings of heaviness here and there. Soon the whole body will be able to feel comfortable and heavy with relaxation. This heaviness may start anywhere, and in different places at the same time. Gradually that heaviness will all come together, so that your whole body can feel heavy with relaxation.

If you want to do it systematically, you may start at your toes and at your feet. Think to yourself, "My feet are becoming heavier. My feet do feel heavier." As you think, they do feel heavier. They actually begin to feel heavier. At this point many people report a tingling sensation in their toes and in their feet. Then slowly, little by little, perhaps faster than the way I am saying it, perhaps not quite so fast, this heaviness can creep up, and up, and up. You select the rate of speed with which you want that heaviness to creep up from the tips of your toes to the top of your

head. It doesn't have to be as fast as I described this; but, think of the heaviness creeping up and up so that your legs become heavier. [Pause.] And after a while, your thighs become heavier or feel heavier. [Pause.] And soon your tummy can feel that heaviness. After a while, that heaviness can creep up into your shoulders, and into your chest, and down your arms and into your fingers. [Pause.] And the whole body, from the neck down can begin to feel heavier. [Pause.] Then after a while you can let that heaviness creep into your jaw. [Pause.] And when it does you can feel your teeth moving apart and your lips moving apart, and you may even wet your lips to help your jaws relax and stay limp and loose. [Pause.] Soon you will begin to feel that your eyelids are heavy, and that they will be more comfortable when they are closed. [Pause.] Now close your eyes and keep them closed. Allow your eyeballs to roll up so that you are looking at the top of your head. Take a deep breath. Visualize the color black, or grey, or any color, and relax all over, and allow your eyes to relax as a part of your general relaxation. That's fine. Eyes also relaxed.

You've done these things one after another. Soon I'm going to ask you to do them all at the same time. So, now start. Close your eyes. Roll your eyeballs up to the top of your head. Visualize the color black, or grey, or any color. Take a deep breath. Relax all over. Now do it again, and do these things all at one time. Take a deep breath and really relax all over. That's fine. Comfortable and relaxed, breathing slowly and deeply. With each breath that you take, you can allow yourselves to come closer and closer to sleep, but remain conscious, hear my voice, and paying no attention to anything, particularly, except that you do feel pleasantly comfortable. That's right. Breathe slowly and deeply. With each breath that you take, relax more and more. Deeper and deeper. [Pause.] Deeper and deeper. Just let yourself feel like you're floating on a cloud and at the same time sinking deeper and deeper into that cloud. It's so pleasant, so comfortable, such a desirable state to be in. Now, I'm going to ask you to visualize and think of something very, very pleasant. Perhaps it would suit you to think of a pleasant day in the summer, at the beach or some lake front; out in the nice sun in a bathing suit. Others are about. You can visualize the water, and the skies, and the people in the variously colored bathing suits that they are wearing. Perhaps some are red, and some are blue,

and others are multi-colored. Soon, very soon, perhaps you will also be able to hear music that is coming from a portable radio. But whether you actually see these things, or only think of them, or actually hear this music, or only think of music, just enjoy it. When you can see these things, or are actually seeing them, or thinking of them in your mind's eye, allow your right hand to go up as a signal to me that you are seeing this. That right hand can go up, and stay up, and you can ignore it, just as a signal to me that you are seeing or thinking of that pleasant scene. That's fine! Up just a little more so that I can see it. It can stay up, and you can ignore it. When that music comes to you with the scene, you can start marking time with the index finger, or pointing finger, of your left hand. Keep on watching, keep on listening, and keep on marking time, as you go deeper, and deeper, and deeper relaxed. That's fine. Deeper, and deeper, and deeper relaxed. Now you can let both of your hands rest comfortable as they were before, on your lap or on the arm of the chair.

I'm going to give you a job to do. This is the job. I want you to press down on your thigh with the left hand and push very, very hard. So very, very hard that, if it were at all possible, you could push your foot through the floor with the strength that now comes into your left hand and your left arm. Push harder and harder and harder. So very hard that you can feel the tightness in your fingers and in the palm of your hand and in your arm and in your shoulder muscles. Keep on pushing without letting go until I count to three. When I get to the count of three, then let go, suddenly and quickly, and relax all over, melting into the chair. I'll tell you how quickly I will want you to do this. As quickly as a rubber band which has been stretched out and then let go, melts or collapses, that quickly do you let go and melt into the chair. But meantime, push harder! Harder! Harder! At the count of three, let go quickly. One! Pushing harder meantime. Two! Pushing, still pushing. Three! Now! Let go! Deep, deep, deep relaxed. That's fine. Breathe slower now, and deeper, and with each breath that you take, go deeper, and deeper, and deeper relaxed.

As you relax deeper and deeper, your eyes are closed. They are to remain closed. Do not open them under any circumstances, until I ask you to open them. When I ask you to open them, you will feel fine and wonderful all over. But until I ask you to open them, please keep your eyes closed.

Learning to relax as you are now relaxed gives one the capacity to ignore painful stimuli. The more relaxed one is, the less pain he can feel. Complete and utter relaxation enables one to reach a point where he can feel no pain whatsoever. I would like you to pay attention to your right hand. Think in terms of an anesthetized hand. A hand encased in a glove of wood or a glove of iron. Be able to feel pressures, but no pain whatsoever. Soon, in a little while, when we test this hand, this right hand may feel as if it is being tested with the eraser part of a lead pencil. It will feel different from the left hand, which may feel that it is being tested with an ice-pick. Now, continue to relax more and more, and allow that right hand to become numb, and more numb, and stay numb. You can even keep it numb for as long as five minutes after you are awake. Your ability to do so will indicate special learning abilities on your part. And now, I want you to continue relaxing more and more, allowing the hand to become more and more numb, so that you will be able to ignore the testings of it, while you are relaxed and even after you are wide awake. I would like you now to think about, or visualize, something extremely pleasant. Think of something or visualize something very, very pleasant to you, and enjoy that thought and that visualization. Keep on thinking about that, and keep on enjoying that and allow nothing to disturb you. Continue to relax deeper and deeper, even after this recording comes to an end. Even

after this recording comes to an end, I will talk to you directly and with my natural voice. We will go about testing your relaxations. You are to stay relaxed until I ask you to open your eyes. Do not open them until I ask you to. Stay comfortable and relaxed, relaxing more and more, and being willing to learn more and more. Relax and continue to relax. Relax, visualize pleasant thoughts, your hand becoming more and more numb, being able to stay numb even after you are wide awake.

RESULTS

Experiment 1

Comparison of depth of hypnosis between experimental and control groups was made by applying a chi-square test (X^2).³ Results are summarized in Table 1. The analysis thus yields no evidence to suggest any differences between groups resulting from the experimental technique.

The effect of length of experience as a hypnotist on the depth of hypnosis was analysed by the use of a chi-square test. Results are shown in Table 2.

³ The chi-square test used in analyzing these results is the chi-square test of independence. See Sidney Siegel, *Non-Parametric Statistics for the Behavioral Sciences*. New York: McGraw-Hill, 1956, pp. 104-107.

TABLE 1
Comparison of Hypnotic Levels Between Experimental and Control Groups

Group	Depth of Hypnosis as Judged by Erickson				
	Refractory	Light	Medium	Deep	Total
Experimental	3	7	13	1	24
Control	3	4	10	7	24
Total	6	11	23	8	48

$$X^2 = 5.71$$

$$df = 3$$

$$p > .05$$

TABLE 2
Comparison of Hypnotic Levels Between Subjects Experienced as Hypnotists and Subjects Not Experienced as Hypnotists

	Depth of Hypnosis				
	Refractory	Light	Medium	Deep	Total
No Experience	2	6	11	5	24
Experience	4	5	12	3	24
Total	6	11	23	8	48

$$X^2 = 1.30$$

$$df = 3$$

$$p > .05$$

TABLE 3a
Comparison of Mean Ages of Subjects In Each of Four Hypnotic Levels

Depth of Hypnosis	Refractory	Light	Medium	Deep
Mean Age	49.50	40.00	44.52	38.00

TABLE 3b
Summary of the Analysis of Variance of Mean Ages of Subjects
In Each of Four Hypnotic Levels

Source of Variation	SS	df	MS	F
Between Groups	605.74	3	201.91	2.04*
Within Groups	4,357.24	44	99.03	—

*Not significant

$p > .05$

No significant difference in hypnotic susceptibility was found between the subjects who were experienced as hypnotists and those who were not.

The effect of age on the depth of hypnosis was investigated by the use of an analysis of variance. Results are shown in Table 3. No significant difference was found between the mean ages of the subjects entering the various depth levels.

Results of Experiment 2

Analysis of the effects of the three experimental techniques was made by a series of chi-square tests as summarized in Table 4. Significant differences were found between authoritarian and permissive⁴ techniques and between permissive and relaxation techniques. No significant difference was found be-

tween the authoritarian and relaxation techniques.

Table 5 gives the distribution of ages for the three psychology classes. There appears to be little difference between the mean ages of the three groups. No test of significance for the effect of age on hypnotic susceptibility seems indicated.

Differences in hypnotic susceptibility between the sexes was analyzed by a chi-square test. The results, shown in Table 6, indicate a higher percentage of refractory males than refractory females. The apparent difference between the sexes as to incidence of hypnosis does not reach statistical significance.

DISCUSSION—HYPOTHESIS 1

As stated in the introduction, the writer had encountered many subjects who stated that on one or more previous attempts they had failed to be hypnotized. These same subjects at later

TABLE 4
Comparison of Effect of Three Types of Pre-Induction Verbalization
on Hypnotic Levels

Technique	Depth of Hypnosis				Total
	Refractory	Light	Medium	Deep	
Relaxation (1) ...	13	5	18	4	40
Permissive (2) ...	2	5	5	14	26
Authoritarian (3) ..	12	4	8	5	29
Total	27	14	31	23	95

$\chi^2_{123} = 23.268$

$\chi^2_{12} = 18.847$

$\chi^2_{23} = 12.080$

$\chi^2_{13} = 2.414$

$p < .001$

$p < .001$

$p < .01$

$p < .50$

df = 6

df = 3

df = 3

df = 3

⁴ Ss in authoritarian technique were told they would be hypnotized. Ss in permissive technique were told they would be taught to hypnotize themselves.

TABLE 5
Distribution of Ages for Three Psychology Classes

Age	Authoritarian	Permissive	Relaxation
17	2	5	2
18	6	4	6
19	6	4	8
20	6	3	9
21	2	4	9
22-25	0	3	4
26-30	4	1	0
31-39	2	2	0
40 and over	1	0	2
Total	29	26	40
Means	20.48	21.80	21.15

TABLE 6
Comparison of Depth of Hypnosis as Related to the Sex of the Subject

Sex	Depth of Hypnosis				
	Refractory	Light	Medium	Deep	Total
Male	19	8	18	13	58
Female	8	6	13	10	37
Total	27	14	31	23	95

 $X^2 = 1.391$
 $df = 3$
 $p > .05$

dates proved capable of entering hypnosis. It was surmised that if a large enough number of previously refractory subjects could be hypnotized, a comparison between the successful and unsuccessful attempts might yield some information on the factors involved in resistance to hypnosis.

A population of previously refractory subjects was obtained for Experiment 1 from the seminars. There were some uncontrolled and confounding variables.

No consideration was given to factors affecting the subjects' attitudes to hypnosis occurring between their last refractoriness and the experimental situation. The variability in these factors from subject to subject could have influenced the results.

The attendance at the seminar by the control group subjects for several hours prior to the experimental situation exposed them to the same attitude influencing orientation that the pre-induction verbalization was intended

to accomplish for the experimental group. The experimental procedure, therefore, failed to differentiate between the groups, because samples drawn from the same population were similarly "treated."

Since the pre-induction verbalization was read, it was constant for all groups. However, the induction procedure for all groups, although alike in method, differed in actual verbalization from group to group. This was necessarily so, since the verbalization was not read or memorized. At the time of this experiment E felt that it was necessary to relate the verbalization to the specific behavior of each S in the group. This difference was controlled in Experiment 2 by the use of a tape-recorded verbalization.

The writer believes that in group hypnosis there may be factors not present in individual hypnosis. In group hypnosis there may be a competitive factor which may affect motivation and which may constitute an

TABLE 7

Comparison of Judgments of Hypnotic Depth as Made by Erickson and the Subjects

Erickson	Self-Rating of Depth of Hypnosis by Subjects				
	Refractory	Light	Medium	Deep	Total
Refractory	5	1			6
Light	6	5			11
Medium	3	17	3		23
Deep		3	4	1	8
Total	14	26	7	1	48

TABLE 8

Comparison of Judgments of Hypnotic Depth as Made by Erickson and Secter

Secter	Depth of Hypnosis as Judged by Erickson				
	Refractory	Light	Medium	Deep	Total
Refractory	6	2			8
Light		3	4		7
Medium		6	10		16
Deep			9	8	17
Total	6	11	23	8	48

TABLE 9

Summary of Percentage of Agreement Between Erickson and Other Judges

Comparison by Judgment of Depth of Hypnosis Between	Percentage of Agreement	Comparison by Judgment of Refractoriness vs. Hypnotizability Between	Percentage of Agreement
Erickson and Subjects	29%	Erickson and Subjects	79%
Erickson and Secter	56%	Erickson and Secter	96%
Erickson and Audience	60%	Erickson and Audience	96%

uncontrolled variable between subjects and between groups.

The subjects in each group were all "awakened" at once to test for post-hypnotic phenomena. The behavior could conceivably have varied if the subjects had been "awakened" one at a time and if his responses were kept secret from his fellow subjects.

The experimenter judged hypnotic depth according to the criteria set forth in the experimental design. These criteria were not adhered to by Dr. Erickson or the observers. Erickson was inclined to downgrade E's judgments of the deep stage and to upgrade E's judgments of the light stage. (See Table 8). It may be seen from Table 9 that, while the percentage of agreement between Erickson and E on levels

of hypnosis was only 56%, the percentage of agreement on judgments of refractoriness vs. hypnotizability was 96%. It is possible that there were differences in the interpretation of the S's behavior.

Tables 7 and 9 indicate that the subjects' own judgments as to depth of hypnosis varied greatly from judgments made by other judges. All subjects in the experiment were accepted as having been previously insusceptible on the basis of their own self-ratings. The possibilities are that errors were introduced which could have affected the results. The experiment was conducted before an audience. This also could have influenced the results.

The results might have been differ-

ent if the following changes had been made: make the selection of subjects on a basis other than a self-rating of insusceptibility by the subject; match subjects for events occurring between the last test resulting in insusceptibility and the experimental situation which could affect attitudes toward hypnosis; conduct the experiment in privacy and with one subject at a time; use a constant induction method for all subjects; enable at least three competent judges to make judgments based on a uniform set of criteria.

While the experiment failed to support the hypothesis as stated, some significant factors were disclosed. Table 10 shows the distribution of hypnotic depth for the combined groups.

TABLE 10
Distribution of Hypnotic Depth for the Combined Group

Number	Hypnotic Depth	Percentage
6	Refractory	12.5
11	Light	23.0
23	Medium	47.8
8	Deep	16.7
Total 48		100.0

This was compared with the values reported by various investigators (See Table 11.)

It should be noted that the percentage of refractoriness was slightly smaller than the mean percentage of insusceptibles reported in Weitzenhoffer.

The experimental groups showed a larger percentage entering the medium stage than reported by the investigators quoted. The latter, with the exception of Friedlander and Sarbin, reported a larger percentage entering the deep stage than the percentage entering that stage in our experiment. The combined percentage of those entering the medium and deep stage was considerably larger for our experimental data than for the comparable data in Weitzenhoffer's text.

The importance of the above lies in the fact that our data were obtained from subjects previously categorized as refractory. The comparable data were presumably obtained from samples of volunteers or patients without previous experience in hypnosis. There is a possibility that the insusceptibles of one investigator are found in the hypnotizable classifications of other investigators. Because of these factors, and the lack of uniformity of criteria for hypnotic depth, the validity of the quoted percentages is open to question. The behavior demonstrated by our previously refractory experimental subjects challenges the concept of refractoriness to hypnosis as a permanent characteristic of subjects.⁵

⁵ This conclusion depends on the not necessarily valid assumption that the Ss' self-ratings of previous refractoriness are reliable.

TABLE 11
Percentages Entering Various Trance Depths as Reported by Weitzenhoffer (8)

Classification	Hull	Davis & Husband	Barry et al.	Friedlander & Sarbin	Van Pelt	Mean %
Insusceptible	10.5%	9%	16%	33%	5%	14.70%
Hypnoidal & Light Trance	32.7	47	37	50	35	40.34
Medium Trance	34.6	15	28	12	35	24.92
Deep Trance	22.2	29	19	5	25	20.04
Medium & Deep Combined	56.8	44	47	17	60	44.96

Weitzenhoffer (8) states:

There is probably no such thing as an individual who is insusceptible to hypnosis. Every normal person has the potential for developing deep hypnosis, and it is just a matter of finding a way to make use of this potential.

The subjects of Experiment 1 were questioned as to the probable causes for previous refractoriness and the probable reasons for present susceptibility. Their answers may be summarized in Tables 12a and 12b.

TABLE 12a

Probable Causes of Failure to Enter Hypnosis Given by Subjects in Experiment 1

Reason	Number of Ss
Too analytical	24
Negative prestige factor.....	12
Trying too hard.....	5
Inadequately prepared	2
Unco-operative in psychotherapy..	1
Don't know	1
Unfavorable environment.....	2
Inadequate motivation	1
Total.....	48

TABLE 12b

Probable Causes for Present Success

Reason	Number of Ss
Practice of autosuggestion.....	4
Better co-operation	4
Not analyzing	4
Greater prestige factor.....	13
More favorable environment.....	2
Better understanding of what was expected	12
Better motivation	1
Now recognized previous trance..	1
Total.....	41

DISCUSSION—HYPOTHESIS 2

The difference in obtained results (See Table 4) following the authoritarian approach and the permissive approach is statistically significant at the 1% level of confidence. Examination

* Fourteen Ss rated themselves as refractory (see Table 7). Some refused to acknowledge others' judgments on this matter and therefore would not supply a reason for "present success."

of the data obtained from the relaxation group, in which no mention of sleep or hypnosis is made, indicates that the indirect procedure is as effective a hypnotic procedure as the authoritarian approach. The relaxation group also demonstrated that hypnotic states can be achieved without the awareness of the subject.

It should also be noted that in the authoritarian procedure only 17% achieved deep states, while 54% of the permissive group achieved the deep stages. It may be inferred that, in the permissive group, the subjects did not interpret anything in the situation as a cause for anxiety which could lead them to mobilize resistances. The idea of hypnotizing themselves may have served to remove any thoughts of a dominance-submission relationship.

Something did happen to the authoritarian group which not only resulted in a significantly larger number of refractory subjects than in the permissive group but also resulted in lighter stages. The possibilities are that the subjects in the authoritarian group interpreted the situation in such a way that feelings of anxiety were aroused which precipitated the mobilizing of resistances. Christenson (1) sees reluctance to submit in a dominance-submission relationship as the basis for anxiety in these cases.

We must consider the possibility that what is sometimes labeled as insusceptibility on the part of the patient may actually be only the result of an error in technique on the part of the operator. There is also the possibility that an operator himself may regard hypnosis as a dominance-submission relationship and that this may be rejected by the subject.

According to Erickson (2), authoritarian approaches often fail in both experimentation and therapy because the subject is treated as an automaton. He is expected to execute commands and is not always considered as a per-

sonality with individual patterns of response and behavior. The authoritarian hypnotist expects the subject to adjust to the hypnotist's verbalization, instead of adjusting his verbalization to the desires and indicated capacities of the subject.

Some operators give lip service to the proposition that the responsibility of entering hypnosis and producing hypnotic phenomena are functions of the subject. However, the challenges and commands they issue, the kinds of suggestions they give, betray their hypnotist-centeredness.

It is the opinion of this writer that the results of Experiment 2 strongly support the point of view that permissive, non-authoritarian approaches are generally more effective than the authoritarian in the production and utilization of hypnotic states.

SUMMARY AND CONCLUSIONS

Consideration of factors involved in the hypnotizing of previously resistant subjects led to a hypothesis that hypnotizability is a function of the patient's attitude toward hypnosis. Subjects who have, on one or more occasions, failed to enter hypnosis while working with an experienced hypnotist were studied to determine the effect of certain positive verbalizations, used in preparing the subject for induction of hypnosis, on the incidence of hypnosis. The verbalization was designed to create for the subject a favorable attitude toward hypnosis. In addition, a study was made of the reactions of three elementary psychology classes listening to a tape-recorded hypnotic induction verbalization after a different verbal introduction had been given to each class. Two experiments were designed to test the following hypotheses:

Hypothesis 1: When an experimental situation is so structured that a favorable attitude toward hypnosis is actively encouraged, a higher incidence of hypnosis

will be found than in a situation in which no such attempt is made.

Hypothesis 2: When an experimental situation is so structured that the subjects are told that they will be taught to hypnotize themselves, a higher incidence of hypnosis will be found than in a situation in which the subjects are told that they will be hypnotized.

The subjects in Experiment 1 were 48 males, ranging in age from 24 to 70 years. They belonged to three occupational groups, viz. dentists, physicians, and psychologists. All had previously failed to enter hypnosis while working with an experienced hypnotist. Six subjects were selected at random from volunteers at each of eight seminars on hypnosis. Four of the groups thus formed were designated by using a table of random numbers as experimental groups. The remaining four groups were the control groups. Prior to a group-induction procedure all subjects were presented with TAT card 12M and were requested to write a story about what they saw in the card. A pre-induction verbalization was read to each one of the experimental groups. The control groups were not given this verbalization.

In all instances, in both experimental and control groups, five subjects entered various stages of hypnosis and one remained refractory. No significant differences as to incidence of hypnosis were found between groups. The experiment failed to support the hypothesis. The results disclosed that in the above experimental situation, a group of subjects who described themselves as previously resistant manifested an incidence of hypnosis in the medium and deep stages considerably larger than that reported by other investigators.

The subjects in Experiment 2 were the members of three college classes in elementary psychology. The students were asked to look at TAT card 12M and write a story about it. Afterwards the students in one class were

asked if they would like to learn a method of relaxation. In the second class, they were asked if they would like to learn how to hypnotize themselves (the permissive approach). In the third class, the students were told that they would be hypnotized (the authoritarian approach). After their consent was obtained, all classes listened to the same tape-recorded induction verbalization. Following this the students were tested for incidence and depth of hypnosis.

Significant differences at the 1% confidence level were found between the "permissive" group and the "authoritarian" group and between the "permissive" group and the "relaxation" group. Hypothesis 2 received very strong support in the predicted direction.

CONCLUSIONS: EXPERIMENT 1

1. A statistical analysis of the data from Experiment 1 (Table 1) indicates that no significant difference exists between the experimental and control groups as to the incidence of hypnosis.

2. There is no significant difference in the incidence of hypnosis (Table 2) between subjects who have had experience as a hypnotist and those not so experienced.

3. There is no significant difference in the mean ages of subjects in the various depths of hypnosis.

4. Erickson's statement (2) that "hypnosis can probably be induced in all normal persons under suitable conditions and also in many persons suf-

fering from various types of abnormality" receives very strong support from the fact that all of the subjects in the experiment were previously categorized as refractory, but the incidence of hypnosis compared very favorably, nevertheless, with the over-all results in the previously reported literature. The concept of refractoriness to hypnosis as a permanent characteristic of subjects is thus challenged.

CONCLUSIONS: EXPERIMENT 2

1. The obtained results (Table 4) lend strong evidence to support Hypothesis 2. Statistical analysis yielded a very high (.01) level of confidence. The value of chi-square computed from the obtained differences indicates that the results are in the predicted direction.

2. The behavior of the relaxation group tends to support the theory that hypnosis can be accomplished without the awareness of the subject (4).

3. The incidence of hypnosis resulting from an indirect procedure (relaxation technique) compares favorably with the incidence of hypnosis resulting from the authoritarian technique. Neither of the above is as efficient as the permissive technique.

4. There was a higher percentage of refractory males than refractory females. This apparent difference did not lead to statistical significance. The sex of the subjects in this study did not seem to be significantly related to hypnotizability.

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HALLUCINATORY EXPERIENCES UTILIZED FOR OBSTETRIC HYPNOANESTHESIA

by R. V. August, M.D.¹

This paper relates a few selected experiences utilized for hypnoanesthesia in labor and delivery. These have been chosen from among the case histories of the last 500 patients so delivered. The author has been using hypnoanesthesia exclusively in over eighty per cent of his obstetric practice (1, 2).

The permissive or naturalistic approaches were used (3). The authoritarian method was sometimes superimposed terminally in order to insure satisfactory intensity of anesthesia for completion of operative procedures. Personality profiles were not constructed. General evaluation was always made.

These patients were confronted with a symptom—the pain of labor and delivery. This required removal. Hypnoanesthesia was considered to present a lesser risk than chemoanesthesia for the mother and certainly for the unborn infant. Standard techniques such as eye fixation and levitation were usually used for conditioning. For the woman in labor, especially when first seen in the throes of fear and discomfort, the following ideas have been developed:

1. *Development* of simulated sleep with associated regional anesthesia.
2. *Distraction* by division of the body into areas of intensified tension (the tightly clasped hands) and intensified relaxation (from the abdomen on down).
3. *Diversion* from consideration of labor to enjoyment of pleasant activities predetermined to have been part of the patient's experiential history.

Cases presented will be selected exclusively from the last group.

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Some women desired "just sleep." Others wished to experience lying on the sand at the beach, swimming, fishing, water skiing, roller skating, dancing, playing the piano, singing, or watching television. Some wished to travel, in their own car with their husband driving. The hallucinatory activities involving ideas of physical movement have been more effective in the production of deeper trance states. However, it should be noted that some patients readily reached a stuporous state in response to a verbalized picture of sitting quietly while fishing. Every one of these patients was delivered with the aid of hypnoanesthesia and without any chemical anesthesia.

Prior casual conversation revealed the patient's recreational and occupational likes, and, if she liked to travel, what cities she liked. A choice of diversionary activity was made. Successful hypnosis depended not only on acceptance of an activity favorable to the patient but also on understanding her and on being conversant with this particular activity. The fact that the patient was being seen for the first time or that she was already in arduous labor had no apparent bearing on the success of hypnosis.

CASE 1

R.C. was a 21-year-old white gravida iii, para ii, in definite labor prematurely at six months gestation. She had an appointment to see me for the first time the following week. I wanted to use hypnoanesthesia to avoid fetal narcosis. Preliminary conversation revealed that she liked to travel by automobile and had made the trip south to Chicago and north to the Straits of Mackinac a number of times. As she expressed no preference for either, I chose the journey south because of my greater familiarity with this route. I aided her in hallucinating her husband driving the car and herself sitting in the front seat watching the trees,

telephone poles, houses, and the cars passing in another lane. After a lapse of time I checked on her progress. She had not yet reached Holland (Michigan) or even Grand Haven, which is only ten miles south of Muskegon. I had lost her. So I asked, "Where are you now?" She answered, "Ludington," which is 60 miles north. Subconsciously she had preferred to drive north but had been considerate enough to permit me a choice. I turned around to accompany her. We enjoyed the journey together but reached the Straits bridge before completion of the delivery. So I asked her husband to drive very slowly as we wished to notice the sky, the water, the boats, and other cars. I asked if we might stop from time to time in order to see everything fully. We delivered a 2 lb. 7½ oz. infant, which is alive and healthy today. She later told me that the bridge crossing was the slowest trip she had ever taken.

CASE 2

L.K. was a 31-year-old white gravida iv, para iii, conditioned for hypnotherapy. She had traveled extensively from coast to coast and preferred a trip with her husband and three sons to California. Shortly after beginning this hallucinatory journey, I noticed that she persisted in speaking in the past tense. Fearing that recall might be insufficient for adequate anesthesia, I suggested a different trip, one to Grand Rapids, thirty miles away. She named and described every passing car. She even visualized a police car which chased and flagged down an offending motorist, when this was suggested. The delivery, episiotomy, and repair required no chemoanesthesia. My lack of familiarity with her route may have led directly or indirectly to her resorting to recall. Shifting to a route familiar to myself compensated for my deficiency.

CASE 3

T.W. was a 30-year-old white gravida ii, para 0, previously conditioned. She was complaining vociferously at three cm. cervical dilatation prior to my arrival. She agreed to hallucinate an auto trip to Arizona. From this moment on she verbalized freely, completed her journey, then took her husband (who was present throughout) and me on a vivid journey visiting a number of local taverns, "The Red Rooster," "The Grey Goose," and several others with less flamboyant names. In the meantime she paid no attention to the episiotomy, forceps delivery, and repair. At comple-

tion, it was difficult to convince her that the delivery was done.

CASE 4

R.B. was a 19-year-old white gravida i at term. She had gained very little in pregnancy but weighed 240 pounds when labor began. Labor required 28 hrs. 4 min. She had not been conditioned for hypnosis. I suggested an auto trip to Detroit in my usual manner. Because of the intensity of her complaints, the duration of labor already lapsed (20 hours), and the prolonged time required for induction of satisfactory hypnosis (5 minutes), I asked her to stick with me and I would not leave her. Later when I mentioned the desirability of my crossing the hall to change clothes in the doctor's lounge, she objected, then began to manifest her objections by resumption of complaints. I did so several times with the same patient response each time. When I consented to remain in the labor room with her, she again resumed visualizing and verbalizing her journey. So I asked the nurse to bring me a scrub suit, drew the curtain in the two-bed room, and changed clothes on the other side of the curtain, to the complete satisfaction of my patient. She remained deeply in hypnosis through a forceps delivery, a wide mediolateral episiotomy which inadvertently extended high into the vault, the extensive repair, and posthypnotic suggestions, which included suppression of lactation by prearrangement. My repeated attempts to leave her physically had caused me to lose contact with her hallucinatory progress en route to my selected destination, 180 miles distant. As a result I suggested rather vague ideas of geographic location but specific notions of movement. She subsequently related to me that she had taken the Heights-Ravenna Road, reached Cloverville (about ten miles distant), and not knowing the name of the next town she just kept riding around—for eight hours. Her hypnoanesthesia was perfect for symptom removal, because she stated that she was at all times aware of my presence, of the operative delivery, and was conscious of every stitch, but that each time she was touched it felt only as though my finger were pressed lightly to her skin.

CASE 5

E.S. was a 33-year-old white gravida i, previously conditioned. She was admitted to the hospital at eight months gestation with severe vaginal hemorrhage. Emergency cesarean section was performed due to abruptio placentae. Hypnoanesthesia

with suggested auto travel was successfully maintained. Subsequent conversation revealed that she was not continuously traveling but had driven to a drug store in a town 20 miles distant and remained there watching the crowd milling about. She said that she became tired riding around, asked her husband to stop at this particular drug store, obtained a chocolate soda, and just relaxed. Asked why, she gave woman's age-old reply, she didn't know, she just wanted to. The 4½ lb. infant is alive and healthy today.

CASE 6

H.H. was a 20-year-old white gravida i, patient of Dr. L. E. Maire. I was called into consultation because of her prolonged labor (total 36½ hrs.). The final diagnosis was dystocia due to fetal military attitude and relative cephalo-pelvic disproportion due to a large fetus (9 lb. 9 oz. at birth) and just average maternal pelvic measurements. The delivery was accomplished by permitting gradual cervical dilatation, converting the fetal attitude to an occiput anterior manually, use of mid forceps, an episiotomy, and hypnoanesthesia at the request of her attending physician.

I first suggested an hallucinatory automobile trip to Detroit in the manner already described. Then, while playing for time in order to permit progressive cervical dilatation, I suggested stopping for a drink of water, later for a meal. When thirst was first suggested she readily accepted the idea. So did the attending Catholic sister, who hurried with a glass of water to the patient while I was conversing with Dr. Maire. The patient dazedly accepted the glass. I then gave the sister some advice and later gave the patient a glass of my hallucinatory water, which she drank with much more relish. Before long she became critical of her husband's driving (apparently recall), so I asked if she were a better driver than he. She quickly agreed. I then asked if she would prefer to do the driving. She did. So I permitted her to drive the remainder of the way. After a while she complained of the bumps in the road (this may have been due to labor pains). Upon learning that she was driving a 1952 Buick, I asked if she wouldn't like to drive my 1958 Cadillac. She said, "Yes," and did so the rest of the way.

Still playing for time, I suggested stopping somewhere to eat. She agreed. I intimated that she would see a very nice restaurant as we passed the next curve in the

road. Soon she said that she saw it but didn't want to stop there. So we drove on until she picked her own restaurant, which she did shortly. She read the menu, selected a steak, well done and without blood for herself, and the blue plate special, spare ribs and sauerkraut, for her husband. I asked if I also might eat and later if Dr. Maire might eat with us. She agreed so we also had steaks. Following this we had dessert. Later I suggested that Dr. Maire would pay the entire check. She protested but not too strongly. She then burst into laughter. What was the joke? She said that her husband would also have had a steak had he known that Dr. Maire would pay the check.

She had just ridden past Lansing (about half way) when the delivery was completed. I suggested that she would reach Detroit about the time I counted to four. I did so in about eight seconds. She did likewise.

This patient had been in uncomfortable labor despite chemical sedation for over 30 hours. She completed the last six hours comfortably under hypnoanesthesia. The hallucinatory water was much more satisfying than the real thing, because the latter had no place in an hallucination. She revealed her marital situation by her attitude toward her husband's driving (I always suggest that he is driving slowly and well) and by making him eat the blue plate special. Her sense of humor was manifest when Dr. Maire paid the check. She later revealed that she did not want to stop at the first restaurant for fear of the prices being too high. How many of us associate a "nice" place with high prices? The bumps in the road might have been hallucinatory, recall, or real. Time distortion permitted her to complete half the journey in six hours, the other half in eight seconds. Amnesia was perfect.

CASE 7

P.P. was a 33-year-old white gravida ix, para vii. Taking care of her family permitted no time for recreation. She spent all her free time sewing for her children. I permitted her to hallucinate herself sewing a dress for her five-year-old daughter. She described the material, discussed her sewing machine, and occasionally admonished one of her youngsters. I tried not to interfere with her flow of conversation. Upon completion of the delivery I inquired about her progress. She still needed to complete sewing one sleeve. The use of time distortion at this point permitted me to leave shortly.

CASE 8

W.P. was a 19-year-old white gravida i, who loved to roller-skate. She did so all night through the entire labor and delivery. After changing my clothes I stopped in her room to say goodbye. I asked her how she felt. She said, "I'm tired." Wondering why she should be tired and not I, I asked why. She said, "Doctor, if you had been roller-skating all night you would be tired too!" She meant it.

CASE 9

M.W. was a 23-year-old white gravida i. Her favorite recreation was water skiing. She imagined herself doing so throughout a rather prolonged labor and delivery. Shortly before delivery she complained of being very chilly and of having developed a backache. I did that which appeared to be the most logical thing at the time. I covered her trunk with blankets and talked more strenuously. The obstetric procedures were completed uneventfully, but I worried the remainder of that night. Why had she complained? Why wasn't the hypnoanesthesia more adequate? I questioned her the following morning. She stated that her last experience with water skiing had taken place on a "cold, miserable day." Then I asked her to point to the exact location where her back had ached during the delivery. She pointed to the base of the neck, between the scapulae, a most unusual place for a labor backache.

CASE 10

I.S. was a 15-year-old Negro gravida i, single, and of extremely subnormal intelligence. She was illiterate, had no recreational inclinations, never went to the beach, and refused to think of riding in a car, because it "always made her sick." I suggested watching television. She did so intermittently, whereupon I asked what reason there might be for interruptions. She said that their TV set was not working very well and would lose the picture from time to time. I suggested that she watch my television screen because it worked perfectly, so well that we had even eliminated the commercials. The program she watched was one of cowboys and Indians. She did not know the name, only the characters. Hypnoanesthesia for a forceps delivery, episiotomy, and repair was perfect.

CASE 11

N.K. was a 20-year-old Negro gravida iii, para ii, in labor at six months gestation. Her experiential background also made the

use of hallucinatory television advisable. However, she was intelligent enough to know the name of her favorite program, "Wagon Train." She easily delivered without the aid of chemical analgesia or anesthesia a male infant weighing 1 lb. 15 oz. Then she wanted to relax some more. I permitted her the hallucinatory television for another hallucinatory hour. I changed clothes and five minutes later returned to help her turn off the TV. Her infant is alive today, another credit to television—the hypnotic kind.

CASE 12

J.B. was a 23-year-old white gravida ii, para i. Cesarean section was planned. She was an accomplished musician, so I encouraged her to imagine herself playing the piano in hypnosis. When she first did so and, on concluding, named the Bach interlude, I congratulated her on playing so well. She replied that she had made two mistakes. I said that I did not notice any. She said that I didn't know piano music very well. I agreed. Subsequently I taught her to keep time to her own music by nodding her head while leaving her arms at her sides. Then I suggested that she could deepen the hypnosis whenever she wished by also singing. She already knew as does every one of our conditioned patients that she could leave hypnosis whenever she desired "except when she was in the hospital in the process of having her baby." She could do so by counting aloud to three. She had a cesarian section delivery with no medication, analgesia or anesthesia, at any time prior to, during, or after surgery. By prearrangement, she saw her newborn infant at the moment of delivery. She then closed her eyes and continued with her hallucinatory piano playing. When I delivered the uterus through the abdominal incision for easier closure, she requested permission to sing. This was granted. She sang for the remaining duration of the operation.

CONCLUSION

A satisfying activity in the patient's experiential past has been recreated by means of hallucination and so utilized to produce satisfactory hypnoanesthesia. This has been illustrated by 12 case reports, each representative of a different type of patient, a different problem, or a different approach. This

work can be summarized with the following conclusions.

1. Hypnoanesthesia was adequate for delivery in each of the aforementioned patients. No chemoanesthesia was needed.

2. Prior conditioning was not necessary for satisfactory hypnoanesthesia even when the patient was already in arduous labor.

3. Excessive prematurity was considered to be an indication for hypnoanesthesia in order to avoid fetal narcosis.

4. A variety of obstetric problems was managed without chemical analgesia or anesthesia. These included prolonged labor, episiotomy, forceps delivery, difficult fetal attitude, relative cephalo-pelvic disproportion, abruptio placentae and cesarean section.

5. Rapport was easily established with patients not previously seen and with other physicians' patients being seen for the first time, already in labor.

6. Patients of subnormal intelligence and without satisfactory avocations responded to visual imagery (hallucinatory television).

7. A variety of hallucinatory activities was utilized. These included watching television, automobile travel, sewing, roller skating, water skiing, piano playing, singing, fishing, and others not mentioned here.

8. Hallucination of vigorous activity may result in posthypnotic hallucinatory discomfort.

9. Recall may aid in hypnotic induction. It may also result in less intensive hypnoanesthesia.

10. Time distortion is often applicable.

11. The patient is always in control of the situation. She may resort to literal interpretation and may even direct her own course.

12. The physician needs to remain alert at all times. He must be cognizant and considerate of his patient's desires and needs.

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HYPNOTHERAPY IN GYNECOLOGICAL PROBLEMS

by Donald Coulton, M.D.¹

An awareness of emotional responses as part of the total patient is essential in gynecological practice. Perhaps in no other branch of medicine are the emotional conflicts so commonly reflected in symptoms. One half to two thirds of gynecological patients are seen because of primarily psychogenic functional disturbances. Some who have such dysfunctions will develop secondary organic changes. Conversely, many patients having primary organic disease develop secondary psychogenic disturbances, which may be more incapacitating than the original organic disease.

Since hypnosis offers a rapid, effective approach to the diagnosis and therapy of dysfunctional or psychosomatic disorders, an understanding of the underlying mechanisms is needed for its rational use. Briefly, the hypothalamus is considered to be the effective seat of emotional responses; it also contains the centers of the autonomic nervous system and exerts a controlling influence on the pituitary, thus secondarily affecting the whole endocrine system (1). Through this relationship emotional disturbances can affect body functioning, both through the hormones and the autonomic nervous system. For example, when one experiences the emotion of fear, the facial pallor, sweating, rise in pulse and blood pressure, and other changes are the result of both autonomic nervous system effects and increased output of adrenalin. When there is conscious awareness of the origin of the emotional feelings, the associated bodily reactions are recognized and accepted. When physiologic reactions result from

subconscious emotional conflicts of which the patient is unaware, the bodily reactions are described as "symptoms." Such "symptoms" are often a very direct expression of the subconscious conflict and are referred to as "organ language" (2). For example, vaginismus and dyspareunia may result from a subconscious fear of bodily damage from childbirth.

The target organ whose functioning is altered by specific emotional disturbances is not predictable. The kind and degree of dysfunction is also variable, though patterns of response for a given individual tend to form and to be consistent. In general, however, pelvic organ dysfunctions seem to arise most commonly from emotional disturbances relating to sexual, marital, and reproductive problems. These problems may be quite apparent and the symptoms may fulfill a need through the obvious secondary gains arising from them. On the other hand, both the problem and secondary gains may be quite obscure, and the source of symptoms can only be understood on the basis of repressed traumatic experiences in the patient's past emotional life (3). For these reasons each patient must be understood individually, since the specific symptoms are of less importance than the underlying needs which give rise to them. Such symptoms can assume significance only in the light of the patient's own past experiences and emotional understandings. By the same token, adequate therapy can only be accomplished on the basis of new understandings and solutions which are acceptable to the patient as a unique individual.

For these purposes, hypnotic techniques are ideal. When the problem and the secondary gains from symp-

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toms are apparent, their removal by direct suggestion may be justifiable; or the emotional energies may be rechanneled into less objectionable forms of expression. When repressed material is present, hypnotic uncovering techniques can rapidly trace the source, while protecting the patient from conscious awareness until such time as it becomes tolerable. Using permissive techniques, these insights allow an emotional catharsis and lead to solutions which are acceptable to the patient. Further therapy is in the form of guidance and support, which has increased effectiveness because of the hypnotic situation. In brief, the physician's role is one of helping the patient to understand herself better and in aiding her to attain goals which are both rational and practical.

The following cases will serve to illustrate some of the kinds of problems and solutions of typical gynecological cases. It should be borne in mind that every case is unique despite the similarity of symptoms and that therefore both the problem and its solution will always be individual.

CASE 1

Miss J.B. was a 20-year-old nurse who complained of moderate lower abdominal discomfort and severe low backache the first one or two days of each menstrual period. These pains were associated with irritability and depression and occasionally were sufficiently severe to require rest in bed. Usual analgesics and antispasmodics were without benefit. The menstrual cycle was regular every 28 days, with a flow lasting seven days, the latter being of some annoyance to her. Examination revealed anatomically normal organs.

After learning to enter trance readily and experiencing several hypnotic phenomena, she was taught to answer questions at a subconscious level by finger levitation. No uncovering techniques were employed. The role of "nervous tension" in altering normal organ functioning was described with particular reference to pelvic vascular congestion, uterine spasm, and hypertonicity of the low back muscles. The question was then raised as to whether "it

was really necessary for her to experience both abdominal discomfort and low back pain as the result of only the one process of menstruation." With the patient answering only by finger levitation at a subconscious level it was worked out to her satisfaction that her needs could be satisfied by experiencing only the moderate abdominal discomfort, eliminating the more severe back pain, and furthermore that by autohypnosis she could dispel the nervous tension that was responsible for the irritability and depression.

Next the mechanism and purpose of menstruation were outlined in terms of "washing out the old lining" of the uterus followed by the regrowth of a "fresh, new lining." Again working out the answers through finger levitation, it was agreed that three days of proper flowing followed by two days of rapidly decreasing flow as the new lining grew would be adequate in the future.

This patient's next menstrual flow was entirely consistent with agreements reached at a subconscious level during trance. She flowed five days, the first three being notably more than the last two days; she experienced only moderate abdominal discomfort and no significant backache; irritability and depression were noticeably lessened, and both responded to autohypnosis.

She has been followed now for two years, and her menses have continued in the way agreed. One unforeseen change occurred—the average cycle length immediately changed from 28 to 26 days, when the length of flow was reduced from seven to five days! There have been two episodes of delayed menstruation to 35 and 41 days, both occurring during times of emotional stress.

As this case demonstrates, it is not always necessary to uncover the underlying emotional mechanisms, providing due consideration is given to the subconscious acceptance of suggestions. Responses to such suggestions will result in relatively permanent changes of behavior or functioning. In this instance, except for the preliminary training in hypnotic phenomena, the total therapy was carried out in one trance session, while the effects are still continuing two years later.

CASE 2

Mrs. H.M. was a 23-year-old Para III who complained of secondary amenorrhea of five months duration. There was an associated sudden loss of libido and secondary frigidity. Her previous menstrual cycle

had always been regular. Pelvic examination, including uterotubogram, was normal. Her local physician had previously given her a course of estrogen therapy without result. She denied any significant emotional disturbance immediately prior to the onset of amenorrhea.

She was taught to enter hypnosis and achieved a trance of medium depth. Suggestions were given that she could now recall the time previous to the onset of amenorrhea with vivid clarity. After this had been done she related that there had been an emotional disturbance which "she had not gotten over." It involved her husband's revealing a drinking bout, followed by infidelity, which had occurred four years previously. In trance she was able to relate her reaction to feeling insecure and to a desire to punish her husband. Since it had been an isolated experience she agreed she now was willing to resume her former role as a woman and wife. Suggestions were thereupon given to this effect, indicating the onset of menstruation the next day, to be followed by resumption of her usual normal cycles.

Menstruation began the next morning. Partial frigidity persisted two weeks later, but after another trance session there was complete resolution of the problem. During this trance she related her recent emotional reaction to childhood traumatic experiences resulting from her father's alcoholism and the resultant plight of her mother. She wrote six months later that her cycle had continued normally and that the sexual problems had ceased.

This case is a good demonstration of the effect that emotional conflicts which are largely subconscious have on the menstrual cycle. It is instructive to note that, although one might assume that her husband's infidelity was the major cause of her emotional disturbance, she attached special significance to the preliminary drinking bout because of her own individual background of past emotional experiences. Therefore complete resolution of the problem occurred only after recognition and acceptance of the significance of his drinking in terms of her own past associations.

CASE 3

Miss A.A. was a 20-year-old secretary who complained of incapacitating dysmenorrhea. She had always had moderate dysmenorrhea, often staying in bed on the first day of flow. For the past six months it had been severe, requiring morphine and complete rest in bed for two or three days

of each cycle. Pelvic organs were grossly normal on examination.

The only significant event occurring six months ago was her engagement; she "looked forward" to marriage in a few months. Since time was limited on this first visit, she was taught how to develop a lower abdominal hypnoanesthesia through autohypnosis, this being accomplished as a posthypnotic suggestion. A mild analgesic-antispasmodic (Edrisal) was also prescribed in the event that medication became necessary. The effectiveness of this medication was augmented by the accompanying suggestions that it was "a specific for all menstrual pain, and other patients had found that one tablet would control all discomfort for long periods of time." She reported after her next menses that she had succeeded moderately well, staying home from work only one day and not needing narcotics. She had taken two analgesic tablets the first day of flow, one the second day, and needed none thereafter.

On the second session, uncovering techniques were used. Employing stage dramatics, a "happy scene" was suggested and she visualized her fiancé lying on the floor bleeding from genital wounds. Associating to this revealed that she greatly feared childbirth, as her mother had been "badly torn and permanently damaged" by her home deliveries. Her engagement mobilized these fears, as she wanted and planned on having children soon after marriage. Therapy was directed toward enlightenment and reassurance about modern obstetrics, until a state of self-confidence replaced her previous fears. This was done during two sessions with the patient in deep trance, each followed by spontaneous amnesia for trance events. At the conscious level she dated her loss of apprehension about childbirth from the time of her girl friend's "easy" hospital delivery! Repeated stage dramatics of a "happy scene" produced a visualization of her wedding reception with her mother, fiancé, and herself gaily decorating the room.

She reported five months later that she had had minimal discomfort, being able to work throughout menstruation. She still practiced autohypnosis occasionally and took one to two analgesic tablets on the first day of flow. A follow-up one year later revealed she was happily married and pregnant.

It is interesting to speculate on this patient's need to take medication. In the dosage taken, the analgesic-antispasmodic approximated a placebo, and yet its effectiveness was consistent with the suggestions

that "it was a specific for menstrual pain for long periods of time." By its use the patient was freed of harmful narcotic medication and associated disturbing side-effects, while still being able to satisfy her need to take medication. Since she had always had moderate dysmenorrhea, it is doubtful that suggestions to the effect that "no medication would be needed" would have been either acceptable or successful. This is borne out by her continuing to take one or two tablets per cycle during the next several cycles.

The underlying psychodynamics are also interesting. The original fear, formed from knowledge of her mother's genital damage from childbirth, was triggered by her engagement, which would lead inevitably to her own childbearing. The first stage dramatics clearly symbolized this fear, since a "happy scene" indicated her fiancé would be unable to get her pregnant. When these fears had been relieved, the subsequent stage dramatics revealed a truly "happy scene" in which she was anticipating her marriage.

CASE 4

Mrs. L.E. was a 32-year-old Para III who complained of primary frigidity. A course of testosterone had aggravated the problem and resulted in an aversion to intercourse.

Hypnosis was employed to uncover the origins of her emotional reactions. By the use of memory recalls, she was able to relate her feelings to "forgotten" traumatic sexual experiences at about the time of puberty. These experiences primarily concerned normal heterosexual curiosity and explorations which were discovered by her parents and for which she was made to feel thoroughly "shamed," "guilty," and "bad." They were recovered by utilizing hypermesia and later age regressions, followed by suggestions of amnesia for them "until they were no longer disturbing to her." During three trance sessions, these events were re-lived with considerable emotion and then discussed, resulting in a better understanding of the normal processes of emotional development of that age group. At each return visit, before the trance session, she would volunteer some part of these experiences as "something new she had recently remembered" relating to her frigidity. When these were recalled at the conscious level, they were no longer disturbing to her.

After three trance sessions the frequency of intercourse had increased to two or three times weekly, the patient having an orgasm about two times in three. These

responses have continued satisfactorily for over a year with the exception of three months, during which time she was pregnant and miscarried; during pregnancy sexual desire and orgasm temporarily disappeared.

This case was fascinating because of the way the woman chose to arrive at a conscious understanding of the traumatic material underlying her problem. It is important to protect patients from premature conscious awareness by giving them suggestions for amnesia for emotionally traumatic material until it becomes acceptable to them. When this has been done, it is equally important not to discuss this material with the patient out of trance until she volunteers it as known to her at a conscious level.

CASE 5

Mrs. C.L. was a 22-year-old Para II, hospitalized for severe vaginal bleeding of three weeks duration. An emergency curettage and two transfusions were carried out on admission. Pelvic organs were normal except for a 3½" right ovarian cyst, which was not removed due to the marked blood depletion.

History revealed an emotional crisis immediately prior to the onset of bleeding, involving both a failure of her marriage and loss of maternal support. Fourteen months before, her husband had deserted her for a gay life with several other women. Because of a need for support, she and her two children had had to move in with her mother and step-father, though this solution was unpleasant to all concerned. Finding this situation unlivable, she attempted a reconciliation by moving in with her husband and his parents two months before admission. During the two weeks of this attempt, her husband ridiculed and humiliated her, thoroughly rejecting both her and their children. She was forced to return to her mother's home, though it had been apparent she was not wanted there. One normal menstruation occurred soon after returning; the following menstruation began the hemorrhage requiring admission. She felt deserted and totally defeated in life, particularly in her role as a woman and wife . . . "I know what my problems are, and no one can help me."

She entered a medium depth trance readily. No deep uncovering techniques were used. During four trance sessions extensive ventilation was encouraged, followed by counseling and supportive suggestions oriented around improving her circumstances. Suggestions were also given indicating the

dates of her next menses; she desired a five-day flow instead of her usual seven, and this was included in the suggestions. The final suggestion concerned the regression of the ovarian cyst as the emotional disturbance subsided.

Vaginal staining continued until the next menstruation, which began on the day suggested, 28 days after the curettage, and lasted five and one-half days. The cyst was markedly reduced in size, though still detectable. She had found a job and was working regularly, paying her mother to take care of her children; divorce proceedings had been started and she felt greatly relieved about this decision "not to look back any more." The home situation still presented problems, but her feelings of hopeless defeat and depression were largely replaced by increasing self-confidence and a conviction that "things would work out." Two further trance sessions were limited to supportive therapy. Menstruation continued regularly, with a cycle of 26 to 29 days, each flow lasting five days. The cyst had entirely disappeared after the second menstruation.

Hypnosis was used in several ways with this patient. First, she was given the opportunity for adequate full ventilation of her feelings, discharging the emotional tensions. This laid the groundwork for her to abandon her depressive ruminations and make constructive plans within the limits of her possibilities. Secondly, normal menstrual functioning was restored, both as to length of cycle and duration of flow. This was done by developing an age progression and suggesting the symptoms and events of each day during the premenstrual and menstrual period. The association of dysfunctional uterine bleeding and emotional disturbances particularly of a sexual nature have been reported many times; Heiman (4) has made the interesting observation that "if normal menstruation is the weeping of a frustrated womb, then dysfunctional bleeding is the mourning of the womb over a lost loved object." Thirdly, the idea that the ovarian cyst would regress as the emotional disturbance subsided was introduced. Why or how the cyst dis-

appeared is a moot point; Robertson (5) suggests that functional ovarian cysts are associated with "arrest of erotic emotional growth." Therefore they might be expected to subside as the disturbance diminished. It seems reasonable to assume that these cysts are part of the process by which emotional disturbances result in dysfunctional bleeding, and therefore are reversible.

CASE 6

The following case is reported because of its similarity to the preceding one, except that the treatment was carried out on a completely organic basis.

Mrs. F.M. was a 20-year-old Para II, hospitalized because of a 3¼ functional left ovarian cyst. Menorrhagia of 12 days duration had been recurring for the past six months. She complained of dyspareunia, leucorrhea, left lower quadrant pain, and variable urinary symptoms. Past history revealed several episodes of pelvic pain and "urinary infection." Except for the presence of the ovarian cyst, no organic explanation of her symptoms could be found; there was no urinary or cervico-vaginal infection. She refused to discuss her emotional problems except to admit that she had always been frigid and there were severe marital problems.

Laparotomy revealed normal pelvic organs except for a 3" left ovarian cyst, which was resected. It was a lutein cyst with internal hemorrhage.

Surgically the patient made a rapid, uneventful recovery. However by the fourth post-operative day she developed sudden intermittent migraine headaches, variable sharp chest pains accompanied by paroxysmal non-productive coughing, and nosebleeds. Studies, including x-rays, revealed no organic cause for these symptoms. She admitted to having both nose bleeds and headaches whenever she became "nervous and upset."

After leaving the hospital she lived with her mother temporarily, during which time her symptoms entirely disappeared. After returning to her own home with her husband, the headaches, dyspareunia, leucorrhea, and occasional nose bleeds reappeared, all in greater severity than before operation. Her menses returned to a normal cycle with her usual four to five day flow.

The contrast between this case and Case 5 is very informative. Both pa-

tients had emotional disturbances, abnormal uterine bleeding, and functional ovarian cysts. Case 5 was treated essentially by hypnotherapy, giving primary consideration to the emotional factors; the emotional conflict was largely resolved, menstruation returned to normal, and the ovarian cyst disappeared. Case 6 was treated almost entirely from an organic viewpoint by surgical removal of the cyst combined with the reassurance from the various studies carried out that no further organic disease existed; the emotional problems, whatever their exact nature was, continued to exist. Menstruation returned to normal after surgical removal of the cyst, but within four days a new set of symptoms without detectable organic origin appeared.

It has often been stressed that when symptoms forming a necessary outlet or defense for the patient are removed by direct suggestion during hypnosis, the emotional energy may be re-channelled into a new set of substituted symptoms. Although it has received far less attention, this substitution for "needed" symptoms which have been removed by medicinal or surgical means can also occur. Case 6 seems to illustrate such substitution following surgical removal. The dyspareunia and leucorrhea were not "removed" or improved by operation. The left lower quadrant pain, menorrhagia, and urinary symptoms disappeared after removal of the ovarian cyst, followed

by the appearance of headaches, chest pain with dry cough, and nosebleeds. Further indication of their emotional origin is found in their disappearance while living with her mother and their partial recurrence when again under the stress of living with her husband.

SUMMARY

An effort has been made to point out the frequency and importance of emotional responses in the production of gynecological symptoms. An outline of the possible mechanisms in the production of symptoms arising from emotional disturbances has been offered.

Cases portraying a variety of common gynecological problems have been presented, and their satisfactory resolution through hypnotherapy has been described. One case presented associated organic ovarian pathology which regressed following hypnotherapy. A parallel case treated surgically without regard to emotional factors suggests the possibility of secondary substitution symptom formation.

The necessity of understanding the individual patient's past emotional background and responses has been emphasized. Symptoms assume significance and take on meaning only in the light of such individual understanding. Similarly, effective therapy must be based on solutions which are individually acceptable and consistent with the patient's needs.

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USE OF PREOPERATIVE HYPNOSIS TO PROTECT PATIENTS FROM CARELESS CONVERSATION

by David B. Cheek, M.D.¹

In the primary investigation on "Perception of Meaningful Sounds During Surgical Anesthesia As Revealed Under Hypnosis," (1) I reported the recollections of patients who believed they were able to hear conversation in the operating room while anesthetized. A secondary investigation has been made of patients who have been prepared before surgery with suggestions for ignoring all conversation except remarks spoken directly to them by the surgeon or anesthetist. Time has been given for the acceptance of this idea indicated by a signal from the subconscious with an ideomotor response. Results have been excellent. The following are brief reports of four cases. These have achieved satisfactory amnesia and seem to have protected themselves from careless conversation.

CASE 1

A 42-year-old Para II, obese, with a 10 cm. umbilical hernia. This patient was prepared by suggesting anesthesia up to the waistline "as though walking into a pool of anesthetizing water." She was conditioned to regain this feeling the next day in the operating room as she received the intravenous sodium pentothal. Pressure was made on the muscles around the umbilical hernia area so that she could identify and relax these muscles while anesthetized. Because of obesity and a sensitivity to cocaine derivatives this patient was given sodium pentothal induction followed by 50% nitrous oxide and oxygen. A small amount of anectine was given prior to the intubation of the trachea. The resulting relaxation was equivalent to a deep-ether anesthetic. There was no difficulty in allowing the omentum to suck back into the abdominal cavity as the edges of the abdominal wall were lifted. A Mayo transverse closure was carried out with singular ease.

Twenty-four hours following surgery an attempt, during a medium-trance state, was made to evoke a recall of conversation. The question was asked, "Does your subconscious recall anything that might have been said in the operating room?" She indicated "no", and was asked if there was a deeper level that would know. The answer was in the negative again. She was asked to think it over, and the suggestion was made that perhaps she had simply been polite and was not remembering what she really knew. Her fingers denied this when the questions were appropriately placed.

A second attempt was made six weeks following surgery. Again it was impossible to recall any auditory stimuli, although great care had been taken to speak loudly and to talk at several times about the stages of the operative procedure, as well as the size of the defect to be closed. There was absolutely no evidence of auditory recollections at either a verbal or ideomotor level of awareness.

CASE 2

A 26-year-old white patient, scheduled for removal of recurrent Bartholin's abscess, right, and dilatation and curettage with biopsy of cervix. This patient had been an excellent subject and had used hypnosis to decrease frequency of her tension headaches. She was trained before surgery to "pay no attention to anything unless it was spoken directly to her during the interval between the preoperative injection in her room and the return to the room after surgery." The patient accepted this suggestion and signaled to that effect with an ideomotor response.

On the following day sodium pentothal with a small amount of anectine were used for anesthesia and relaxation. The patient moved several times as the cervix was being dilated. Care was taken to speak out loud at several occasions. At the beginning of the anesthesia there was an episode of hiccoughing. The anesthetist said to me, "Tell her to stop hiccoughing." I then spoke to her and asked for even breathing with complete relaxation, but I did not use her name. She stopped hiccoughing.

As the Bartholin's abscess area was dissected, there was a rupture of the sac, and

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I said, "This is really making a mess." I spoke loudly to the nurse asking for a syringe so that I could fill the sac with fluid and thereby help with the "difficult" dissection.

On the day following surgery in a medium-trance state the patient was totally unable to recall at a verbal or ideomotor level anything heard in the operating room. Ideomotor questioning revealed an absence of "any disturbing sounds in the operating room."

CASE 3

A 37-year-old Para IV, with intraepithelial carcinoma of the cervix, operated in 1953, before I realized that conversation under anesthesia could be heard by a patient. I had trained this patient before surgery to have complete forgetfulness for anything that might have been said between the time she left her room and the time that she returned to the room. It was the custom in the small hospital where I was working at that time to leave patients in the hall until time for entrance into the operating room. In the hallway the physicians would frequently engage in highly vivid conferences regarding their operative findings. Wishing to save my patient, who was naturally concerned about herself, from such possibly frightening conversation I had used hypnosis to achieve an amnesia.

Five years later during a medium-trance state after developing ideomotor responses to questioning, the patient was asked, "Does your inner mind recall anything that might have been said in the operating room while you were under the anesthetic?" The finger indicated "no." She was now asked to regress back to that time and when she was getting the anesthetic to signal with her right pointer finger. She was further told to signal with her left pointer finger when she knew the last suture had been placed at the end of the operation. She signalled these things. She was now asked to go over the operation and if anything were being heard to signal with the thumb as she heard it. She went through the operation three times without giving any signal. Now she was asked, "Does your subconscious recall anything being said in that operating room?" "No." "Are you stating this because it was absolutely silent?" "Yes." The patient was then awakened. The patient was now told in a light hyp-

notic state that she could recall everything occurring in that operating room. Again she was questioned and again she indicated with finger signals that there was no recollection whatever.

CASE 4

A 52-year-old Para 0 with endometrial carcinoma of the uterus required a four-hour radical Wertheim operation. She was prepared in advance of this with the same type of suggestions given the previous patients. She was an excellent hypnotic subject. On four successive trials in deep hypnosis this patient recalled nothing from the time she left her room to the time she returned to her room, a period of approximately six hours.

DISCUSSION

When patients are properly prepared before surgery with hypnotic techniques they will accept an amnesia for everything that is not addressed to them directly. This can be a helpful way of excluding careless conversation and possibly frightening suggestions. Conversely, suggestions can be given directly to such patients while anesthetized and these suggestions can be helpful.

Since patients with cancer might feel that requested amnesia would prevent them from knowing about their condition, I believe they should be told in hypnosis to listen only to the surgeon and to the anesthesiologist. These two members of the therapeutic team should keep the patient posted regarding progress and should plant optimistic thoughts regarding eventual cure.

SUMMARY

Surgical patients will accept suggestions to ignore potentially traumatic careless conversation, and this rejection seems to persist as an amnesia at levels of subconscious thought which ordinarily would release traumatic material for reporting during ideomotor questioning in hypnosis.

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REMOVAL OF SUBCONSCIOUS RESISTANCE TO HYPNOSIS USING IDEOMOTOR QUESTIONING TECHNIQUES

by David B. Cheek, M.D.¹

Outwardly cooperative subjects may be subconsciously afraid of entering a hypnotic trance state. They often develop violent fluttering movements of the eyelids and complain of discomfort when asked to keep the eyes closed. Some will keep their eyes open after they have been asked to close them, as though the lids were in rigid catalepsy. Some will enter a light trance and then find some pretext for scratching an ear or adjusting the clothing in order to escape to an un hypnotized state. Some will give indications of hostility toward the hypnotist when previous behavior has been friendly. Some will show a fear reaction similar to that occurring in the excitement stage of inhalation anesthesia. Some may show a frightening appearance of pseudoshock.

Occasionally these subjects may be led adequately through this troubled phase by ordinary deepening techniques. They may become used to the border zone of hypnosis much as the timid bather may gradually enter the water after dipping in a finger and then a toe to see that it is reasonably safe. A large proportion of timid hypnotic subjects, however, will withdraw from an induced trance state and return to a more superficial level without knowing the reason for so doing. Frequently these patients are bitterly disappointed with themselves for the trouble they are causing. To stop efforts in their behalf at this point may not only be the dead-end for much-needed therapy but may add another weight of psychological failure to burdens already present.

Two gynecological patients during 1954 proved instructive in giving clues

to possible reasons for this consciously cooperative but unconsciously resistant syndrome.

CASE 1

A 32-year-old woman traveled many miles for consultation at the request of a friend who had told her about hypnosis. Her complaints included low-back pain, vaginal discharge, fatigue, dysmenorrhea, and loss of libido. There were no positive physical findings to account for her symptoms. It seemed, therefore, reasonable to show her a little about relaxing and how muscles could be overworking even though she believed them to be relaxed. While trying to imagine the downward pull of a heavy purse on one arm, this patient discontinued the exercise. Her manner changed as she said, "I came down here to find out what was wrong with me." With that she walked out of the office without saying goodbye.

A few weeks later I received an apologetic letter asking me to forgive her bad behavior. She wrote that while standing in my office she had suddenly been overwhelmed with a feeling of mixed fear and hostility toward me. It was not until she had nearly reached her home that the image of herself crossing an empty field on the way home from school had entered her mind. She had remembered that a man had overtaken her on the path across that field and had threatened her sexually. Although she had fainted, she knew her appearance had frightened the man away and had saved her from being molested. That experience had been separated by 21 years from the experience of using postural suggestion in my office, yet the sensations had appeared the same. She concluded her note with the question, "Do you suppose I went into hypnosis at that time?" I did not have a chance to answer this question but she stimulated me to pose some for myself and other patients.

CASE 2

A 27-year-old woman, who had been trying unsuccessfully to have a child, became interested when hypnosis was recommended as a means of uncovering possible psychological factors. This patient had been interned for one year at a German concen-

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tration camp during World War II. She had seen her father led away to be killed. Because of age and graying hair, her mother's life too had been in constant danger. During the third hypnotic interview this patient said, "You know, I have had this feeling before. I think we must all have been in hypnosis during the first two weeks in that concentration camp. We did not care if we lived or not. We walked around in a sort of stupor."

Here were two experiences, one demonstrating a rejection of hypnosis because it reminded her of what might have been a spontaneously occurring hypnotic or hypnoidal state; the second, demonstrating a recognition that a medium hypnotic trance had similarities with what may have been a spontaneous medium trance in the prison situation. From their observations I was led to search for more information about spontaneous trance states.

There have been 60 consecutive patients who have shown conscious cooperation but unconscious resistance to entering hypnosis. Two of these did not permit further study, but 58 were able to discover the cause and subsequently became excellent subjects. Just as with the first two, these all believed their trouble stemmed from some previous traumatic experience during which they felt they had escaped into a protective trance. They all recognized that the initial frightening experience in the artificial induction with me had reminded them of the traumatic one. The natural reaction had been a wish to escape from this conditioned fear response until they learned that the hypnosis could be associated with pleasant thoughts too:

Types of hypnosis-producing traumatic experiences include the following:

Childhood unpleasant general	
inhalation anesthetic	43
Threatened or actual frightening	
sexual experience--(all female)	7
Accident involving unconscious-	
ness or broken bones	6
Death, or serious injury, of a	
loved one	2

58

GENERAL TECHNIQUE OF INVESTIGATION:

A. DEVELOPMENT OF COMMUNICATION WITH SUBCONSCIOUS MATERIAL

(a) *With totally resistant subject, unable to enter hypnosis at all.* Use of Chevreul pendulum according to methods described by LeCron (2).

(b) *With subjects who repeatedly withdrew after entering a light hypnotic state.* Use of ideomotor finger signals (2).

Human beings learn to communicate with words later in life than they do by muscular efforts of gesture, facial expression, and alteration of voice tone. It takes effort to convert thoughts into articulated words, and this effort may lift the plane of thought from subconscious relationships to more conscious ones. We learn to watch for gestures and tone-inflections when studying sterility patients at the first visit when they respond to the question, "Did you want to become pregnant during the first few months of your marriage?" A questioning upswing of inflection on the halting "Yes" tells more than the articulated word. Some will emphatically answer, "Oh yes, I've always wanted children," while their heads are contradicting this with a side-to-side negative gesture.

It is possible with ideomotor questioning techniques first to learn if there is some cause for resistance to hypnosis, then to bracket the time of origin for that cause. Usually memory for the event can then be brought up from

the subconscious level to a conversational level where it can be described.

B. METHODS OF UNCOVERING AND CORRECTING THE CAUSE OF RESISTANCE

(a) *The totally resistant subject who is able to communicate using a Chevreul pendulum but unable to enter a hypnotic state.* Here the initial question may be:

(1) "Does the inner part of your mind have some fear of hypnosis?"

(2) "Would it be all right for you to know what causes this fear?"

(3) "Would it be all right for me to know?"

While answering the first question there may be a further block with a "no" or "I don't know" answer. In this event the following question will usually break through:

(4) "Is there a deeper level of thought which knows the answer to this question?"

Sometimes there will be a block on the second and third questions caused by a spontaneous age-regression to the time of the event. At the age of orientation the event may be too traumatic to discuss, but the regression may be made less poignant by shifting the orientation forward again to the time of interview with the question:

(5) "Would it be all right to know about and discuss this event in terms of your knowledge and experience of 1960?"

It is my feeling that this type of effort to break through an initial refusal to divulge information should always be made, since the subject will usually accept the therapist's implied reassurance that the material becomes less traumatic with passage of time. Closure of the questioning without this effort will underline the assumption that the material is really dark and ominous. We must let the subject know, for example, that the dropping of an

ice-cream cone at the age of three may seem much more tragic to the child of three than it would for an adult of 33 looking back on that experience. When there has been acceptance of the questioning, and a willingness to discuss the matter, it is usually easy to bracket the origin of the frightening event in the following manner:

(6) "Has there been more than one cause for your fear of hypnosis?"

(7) "Did the cause or causes occur about the same time in your life?"

(8) "Was this before you were 20 years old?"

The rest of the bracketing depends on the answers indicated. It must be remembered that traumatic experiences equated by the subject with an hypnotic state may have occurred, so far as subjective understandings are concerned, at the time of, or even before, birth. We have only to recognize such subjective understandings to discover how frequently there are vivid subconscious recollections of the stressful period of transition from peace and relative quiet into the cold world of spanking, dangling by the heels, and irritation to the eyes. Auditory stimuli are heard and registered as though on a magnetic tape for later play-back when language knowledge has made the sounds understandable and special interpretations can be placed upon them.

When the source of trouble has been located in time area, by the process of continued questioning with a Chevreul pendulum, it is easy to discover the actual event. Often the subject will have drifted into a light hypnotic state and will develop sudden insight (1). It is not necessary, however, to bring the material up to a conscious level. The question can be asked:

(9) "Knowing what this was, do you recognize that you can use hypnosis comfortably at this later date

without being reminded of old unpleasant experiences?"

Although this may be disappointing for the therapist who is bursting with intellectual curiosity, it is, nevertheless, helpful for the subject to know that privacy is being respected.

(b) For those able to use finger signals while in a light hypnotic state the questioning is the same as with the Chevreul pendulum.

It is possible that interpretation of evidence has been distorted by my enthusiastic search for an answer. This has ever been a problem with scientific observation. It is comforting, however, to contemplate that, if there has been a misreading of the truth, it is only because the patients have been firmly convinced that what they were discovering was essential to the correction of the problem. The results have justified their conclusions and with 100% correction of the evil they have performed more satisfactorily than do medical patients with any other form of treatment which I have been permitted to use in the practice of medicine. A typical example follows:

CASE 3

A Mexican student in a primary symposium on hypnosis was one of three who were anxious to experience hypnosis before practicing inductions with each other. Using the suggestion that their subconscious minds would force apart their fingers as they entered a trance deep enough for them to produce some phenomena, I went through the motions of describing a peaceful place in the mountains. Two of the men dropped their pendulums and entered hypnosis. Dr. R grasped his pendulum more tightly. Beads of perspiration appeared on his forehead. His face and hands turned an ashy-gray color. I asked him to open his eyes and let the pendulum answer some questions. I asked him:

Q: "Have you ever felt like this before?"

A: "Yes."

Q: "Was this before you were 20 years old?"

A: "Yes."

Q: "Before you were 15?"

A: "No."

Q: "Does your subconscious mind now know what that was?"

A: "Yes."

Q: "Let your eyes close now, and if your inner mind will let you know what the experience is it will pull your fingers apart. As the pendulum falls to the table, the noise will bring that memory up to a conscious level where you can talk about it."

I remained silent for about 20 seconds. As his fingers released the chain, he appeared disturbed. A split second later, as the plastic ball of the pendulum struck the table, he lifted his left hand to the side of his head, opened his eyes and said: "I know now. I was in gymnasium exercises and I was the top man in one of those pyramids. The man below stumbled, and I landed on the side of my head on the cement floor." There seemed to be no further comment. I asked him to pick up the pendulum and answer this question:

Q: "Do you now think you can enter hypnosis comfortably, and be free of the reaction you had a little while ago?"

A: "Yes."

The doctor promptly put himself into hypnosis and repeated the self-hypnosis several times that evening without further reaction. It should be noted that positive, optimistic questions were used, implying that there might be some experience from previous life to account for his evident fear during the first induction. Positive suggestions were continued in the formation of questions so that he might understand there would be a solution and that this solution would help him to be a good subject. This might indicate to the uninitiated that I was forcing his subconscious mind to choose a reason in order to satisfy my needs and relieve the pressure upon him to find an acceptable reason, no matter what it might be. Those who have used therapeutically slanted ideomotor questioning will, I think, agree that it is not easy to force answers of an artificial nature from the subconscious mind.

I have frequently been contradicted and corrected by patients in deep hypnotic states when I have purposely tried to force a conclusion at variance with their own observations. It must be underlined here that at a conversational level it is possible to force acceptance of ideas from the hypnotized subject. Ideomotor responses are more honest. They are often at variance with verbal answers to questions.

SUMMARY

Subjects who are consciously willing but who show unconscious signs of rejecting hypnosis may be doing so because they have at some time experienced a spontaneous trance state during great emotional stress. Methods of helping these subjects to uncover the

blocking experience are described, and a typical case is presented in detail. Of 58 such subjects who permitted investigation with ideomotor questioning techniques there was none who failed to recall a key experience. All were subsequently able to enter and use hypnosis profitably.

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BRIEF CLINICAL REPORTS

AGE-REGRESSION IN DIAGNOSIS AND TREATMENT OF ACROPHOBIA¹

by F. M. Logsdon, M.D.²

This article presents, by means of a case report with comments on the events as they occurred, a method of treatment of phobias.

David, a healthy 9-year-old boy, was referred to the author because of severe acrophobia. His mother stated that he had a "fear of heights" which had caused much concern to both the boy and his family. She stated that as a baby he would not climb up on chairs or furniture. As long as could be remembered, he had had this fear. A family trip through mountains caused a considerable emotional upset. While crossing a bridge in the family car, David would cower on the floor with his head covered. He had never climbed a tree nor evidenced any desire to do so. During the interview with David, he confirmed his mother's story. When asked what he wanted to do when he grew up, he stated "an airplane pilot." When asked if he had ever been in an airplane, he said no.

Hypnosis was readily induced and easily deepened, and he was found to be a most responsive subject. While under hypnosis he was taken on an imaginary trip through the mountains. This had to be cut short due to obvious fear reaction. He was then

told that he was going back in time and, no matter how young he became, he would still be able to talk as a 9-year-old and to understand the operator's questions. "Age-regression" developed, and this was tested at several age-levels. At each level he stated that he was afraid of "high places." He regressed immediately and showed fear reactions. When asked where he was, he stated "on an airplane." By this time he was crying with fear, and the regression was stopped. He was progressed to age 9 and awakened.

At the point where he stated he was on an airplane, his mother showed considerable surprise and wrote a note stating he had never been on a plane. After considerable reflection she later remembered that at the age of 3 months she had taken him on a plane trip. There had been no subsequent trips in an airplane. This was especially interesting, since earlier he had stated that he wanted to be a pilot in spite of the acrophobia.

The second session occurred about a week later. This time he was "regressed," as was done previously, to the plane trip and asked enough questions about it to confirm that he was indeed on a plane. Then he was further regressed to an age prior to the plane ride. At this stage he was asked if he had been on a plane ride and denied the fact. He was told that soon his mother would take a trip with him in an airplane, that it would be fun and that he would have no fear at all. He was then "progressed" in age and took the plane trip in detail. This time he evidenced no fear at all and showed signs of enjoyment. After this plane trip, he was told he would never have fear of "heights." After the regression, while still in a deep state of hypnosis, he was tested by plane rides, car rides through mountains, etc., and given reassuring suggestions for enjoyment. Through these tests he showed no fear at all. He was told that although he had lost his fear he would still respect high altitudes and not do anything foolish.

Three weeks later he was again placed in a deep state of hypnosis and tested by imaginary situations and showed no signs of fear.

¹ EDITOR'S COMMENT: This account is the report of a successful clinical approach to a severe emotional problem by using a combination of the hypnotic phenomena of regression, dissociation, revivification, and selective hypermnnesia. It is not intended that the account should be regarded as a valid demonstration of regression, but only as a valid demonstration of the therapeutic effectiveness of understandings that a patient may achieve. Unfortunately for scientific definitiveness, the clinical situation does not permit an analytical determination of the pertinent and effective factors in a given situation, but it does give the thoughtful reader the opportunity to speculate upon the opportunities offered for scientific studies and researches upon all of the possibilities suggested by the limitations of a clinical report.

² Port Lavaca, Texas.

About three months later his mother reported that on a trip through mountains he showed no signs of fear. He has since been in several situations that had formerly caused trouble without any fear at all. He has apparently had a complete recovery, much to his and his parents' relief.

DISCUSSION

Significant points in this case are (1) desire to fly and (2) fear of altitude, which appear to be in direct conflict. Without hypnosis and "age regression" as it was employed, would it have been possible to connect these apparently opposite statements?

Another interesting feature is the regression to such an early age. Age-regression, although in combination with other phenomena, was the most important procedure in both diagnosis and treatment. In essence, this boy relived clinically the entire 9 years of his life and had it re-shaped in a matter of one hour.

SUMMARY

A 9-year-old boy with acrophobia was successfully treated by using a combination of hypnotic phenomena centering in age-regression during hypnosis.

CONTROL OF POST-OPERATIVE PAIN BY SUGGESTION UNDER GENERAL ANESTHESIA

by L. S. Wolfe, M.D.,¹ and J. Bradford Millet, M.D.²

In October 1958 Cheek (1) presented at the Annual Scientific Assembly of The American Society of Clinical Hypnosis his findings on the capacity of patients in a state of surgical anesthesia to hear and to remember adverse comments concerning them and their physical condition.

In response to this report the authors began a study of the effect of therapeutic suggestions to patients in a state of general chemical anesthesia. Up to the present observations have been made on more than 1500 patients under the care either of the authors or of other surgeons and anesthesiologists. One or other of the authors has personally observed each patient.

Instead of using the technique described by Papermaster and others (3) of talking to the patients during the induction of chemoanesthesia, only simple reassurance is offered then, and therapeutic suggestions are reserved

for the completion of the operative procedure, usually at the time of suturing the subcutaneous tissues. The rationale for this is that the surgical condition is then understood, authoritative comment can be made, and the patient can be made aware of the successful outcome of the surgery, always an item of vital concern to the patient.

Cheek emphasized particularly apnea and cardiac arrest from ill-considered remarks, and the authors had such an experience when one of them, just a week after Cheek's report, remarked at the close of a resection of the colon, "How do you like doing anesthesia on a kyphoscoliotic? They are horrible risks." Up to this point the patient had been doing well, but upon the surgeon's remarks he developed a cardiac arrest. Fortunately this was corrected.

This observation led to an investigation of eight previous cardiac arrests at that hospital. Each was found to have occurred at the completion of the operation, when the dressing was in place,

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the moment most conducive to the relieved comment, "Thank goodness, we are out of that mess."

Those with experience with gas analgesia in the dental chair often are aware of their capacity to hear while they are unable to sense pain. Also, Cheek (2) recently remarked upon experimental animals in hibernation undergoing surgery and withstanding pain but responding readily to sharp auditory stimulation. An explanation of this observation and of patients' behavior in chemoaesthesia can as yet be only speculative. Apparently chemoaesthetics have a greater effect upon those sensory modalities involving pain than upon other sensory modalities. However, a psychological fact probably of importance is the surgical patient's expectation of pain and his unwillingness to experience it, all of which may be conducive to a ready acceptance of suggestions negating pain.

Of the 1500 consecutive unselected patients undergoing general anesthesia, approximately 50 per cent have been able to accept effectively suggestions negating post-operative discomfort. Another 10 per cent show another type of reaction, that of the development of discomfort at a site removed from the area of the operation. For example, one such patient complained of pain in his left hand after a cholecystectomy and offered the explanation, "I probably lay on my hand too long." This distant or displaced pain does not distress the patient to an extent comparable to that expected from the operation incurred.

The patients reported upon were given no special pre-operative medication, nor was any attempt made to offer suggestions or to train them in hypnosis. Only the routine hospital procedures were followed. All therapeutic suggestions were given near the close of the surgery, and followed essentially the following form:

"Mr. Smith, your gall bladder has now been successfully removed. *No serious disease was found.* You will have no pain in the area of your operation. The tube in your nose is there so that you will not be sick. Therefore you will not be sick, and the tube in your nose will not bother you."

Certain types of patients and operative procedures yield results of a special character. In a year's time no pediatric patient has shown post-operative pain, nausea, or vomiting; this experience is quite different from that of previous years.

Hemorrhoidectomies are now done preferably under general anesthesia, since only one case failed to make excellent response to the suggestions for post-operative comfort, ease of elimination, and freedom from pain. These patients, it has been found, are ready to return home the day following the operation and want to return to work within another two days.

In the authors' experience, full mouth extractions and other dental procedures are invariably successful, possibly because pain is relatively slight, and the major discomfort would arise from edema and alteration of the physical sense of the body.

Findings with obstetrical patients are of an entirely different character. No acceptance of suggestions occurred during the general anesthesia of obstetrical patients. This may be the result of the lighter degree of obstetrical anesthesia, or because the psychological setting is so entirely different than in surgery.

In checking patients' reactions several days after surgery, even direct questions about pain fail to elicit adverse responses. The usual response is a matter-of-fact denial of pain, or wonderment at the inquiry.

The knowledge that patients can hear while anesthetized offers opportunities for special assistance to the patients. Reassurance can be given read-

ily at any level of anesthesia and often serves to reduce the amount of anesthetic required. Suggestions can frequently be given to correct the development of bronchospasm or excessive tracheal and bronchial secretions. As yet, no success has been achieved in the control of bleeding. One patient, undergoing a simple appendectomy became pulseless except for weak pulsation in the palpated aorta. The gentle remark that his only disease was a mildly inflamed appendix was followed by a restoration of a normal pulse in two minutes.

Post-operative apnea yields readily to suggestion. However, one such patient, undergoing her fourth operation for metastatic carcinoma, a colostomy, developed apnea and made no response to suggestions to breathe until emphatically commanded to do so. The speculation can be offered that she may have been electing a surgical death as a socially acceptable form of suicide by which to meet her problem, but her personal situation does not warrant exploratory hypnosis to investigate this matter.

Apnea occasioned by too low a carbon dioxide or too high an oxygen level can respond to suggestion. The physician's prestige also seems to be a factor.

An item of particular interest and significance concerns a number of patients who came into surgery with the understanding that they were suffering from cancer. When the surgical diagnosis of no cancer was made, they were told immediately, once only, that the original diagnosis of malignancy was in error and that a benign condition existed which was corrected. Such patients were found the next day to be unworried and unconcerned and comfortably aware of their favorable situation.

The capacity of the patient under chemoanesthesia to hear therapeutic suggestions and adverse comments by the surgeon signifies the importance of

governed remarks and conversation by the general personnel in the operative and recovery rooms. Rules to preclude unfavorable remarks about the patient have been formulated. This resulted from noting that disbelieving and hostile attitudes, expressed in the hearing of patients under anesthesia, often interfere with the acceptance of therapeutic suggestions. Also it was noted that a nurse's unfavorable report, even one concerning another patient, could have a deleterious effect.

Hostility on the part of one surgeon to this study prevented one of the authors (L.S.W.) from making any direct remarks to a patient undergoing an exploratory operation to determine the possibility of cancer. The patient's blood pressure steadily rose during the operation to 220, his pulse reached 120, and neither responded to the usual procedures. However, upon the realization that the lesion was benign, the author's comment addressed to the surgeon, "Dr. X, isn't it wonderful that this man has no cancer?" resulted in a blood pressure of 120 and a pulse of 70 within three minutes.

Another finding of note was the favorable reaction of the nursing personnel. Post-operative care of patients given therapeutic suggestions during chemoanesthesia is much less arduous and demanding. As a result of this observation, the nursing personnel sought to have surgical patients "talked to" as a measure of lessening their own work and making it more pleasing.

All of the positive results have been most gratifying. There remains the significant problem constituted by that 40 per cent of patients who do not accept therapeutic suggestions and whose post-operative recovery and care follow the usual distressing, uncomfortable pattern. The probability is that an adequately effective technique of therapeutic suggestions has not yet been developed. Also, but of minor impor-

tance, there is the need for the education of those who cannot or will not understand this type of approach to

patients' problems; but, as more studies of this kind are made, this obstructive attitude will be corrected.

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THE UTILIZATION OF PATIENT BEHAVIOR IN THE HYPNOTHERAPY OF OBESITY: THREE CASE REPORTS

by Milton H. Erickson, M.D.¹

Requisite to effective hypnotherapy—and the same holds true for experimental hypnosis—is the adequate communication of ideas and understandings to the hypnotized person. Since the object of hypnotherapy is not the intellectual clarification of understandings but the attainment by the patient of personal goals, this cannot be achieved by a simple reliance upon the inherent values of the ideas and understandings to be presented. Rather, communications need to be presented in terms of the patient's personal and subjective needs, learnings and experiences, whether reasonable or unreasonable, recognized or unrecognized, so that there can be an acceptance and a response and a feeling of personal fulfillment.

To illustrate this need to center the therapeutic use of hypnosis about the individual personality needs and attitudes of the patient, three instances of obesity previously unsuccessfully treated by other procedures will be cited.

CASE 1

A physician's wife in her late forties entered the office and explained that she

wished a single interview during which hypnosis was to be employed to correct her obesity. She added that her normal weight was 120 pounds, but that her present weight was 240, and that for many years she had weighed over 200 pounds despite repeated futile attempts to reduce under medical supervision. She stated that in recent years she had been slowly gaining to her present weight, and that she was distressed about her future because, "I enjoy eating—I could spend all the time in the world just eating." Additional history was secured, but the only thing of particular note was her somewhat anxious unnecessarily repeated assertions that she enjoyed eating and liked to while away time by eating for purely gustatory pleasure.

Since she was insistent upon a single interview and hypnosis, an effort was made to meet her wishes. She was found to be an unusually responsive subject, developing a profound trance almost immediately. In this trance state an understanding of time distortion as a subjective experience, particularly time expansion, was systematically taught to her. She was then instructed to have her physician husband prescribe the proper diet for her and to supervise her weight loss. She was henceforth to eat each meal in a state of time distortion, with time so expanded and lengthened that, as she finished each portion of food her sense of taste and feeling of hunger for that item would both be completely satiated as if she had been eating for "hours on end with complete satisfaction." All of this instruction was given repetitiously until it seemed cer-

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tain she understood fully, whereupon she was aroused and dismissed.

The patient, together with her husband, was seen nine months later. Her weight had been 120 lbs. for the past month, and her husband declared that her weight loss had occurred easily and without any medical complication. Both she and her husband spoke at length about their improved personal, social, and recreational activities, and she commented that, even though she ate much less, her eating pleasures had been intensified, that her sense of taste and smell were more discerning, and that a simple sandwich could be experienced with as much subjective pleasure as a two-hour dinner.

CASE 2

A patient weighing 180 lbs. explained half-laughingly, half-sobbingly, that her normal weight was about 125 pounds, but that for over 15 years she had weighed 170 or more "most of the time."

During these years she had been under medical supervision many times for weight reduction. She had always co-operated with the physician, adhering to the recommended diets, obeying every instruction, always losing at least the prescribed poundage each week, usually more. Each time she reduced, she established a goal-weight which varied from 120 to 130 lbs. As she approached this predetermined weight she invariably experienced much disturbing behavior of an obsessive-compulsive character.

When within 5 or 10 pounds of her goal she would weigh herself repetitiously throughout the day, and the nearer she came the more frequent became the weighings with increasing anxiety. When the scales showed exactly the chosen weight, and not until then, she would rush precipitously to the kitchen and "gorge frantically," usually regaining at least 10 pounds the first week. Thereupon the reduction program would cease and there would occur a progressive systematic restoration of the lost weight accompanied by a feeling of despair mingled with a profound determination to engage upon another weight reduction program soon after she had completed regaining her lost weight. She had, in the past, reduced to the goal weight as many as three times within a year, but always under the direction of a different physician.

She now sought reduction to 125 lbs., stating frankly and with some amusement, "I suppose I'll do exactly the same with you, even though you are a psychiatrist, as

I do with every other doctor. I'll co-operate and I'll lose and then I'll gain it back and then I'll go to someone else and repeat the same old silly behavior." Here she burst briefly into tears. Recovering her poise she continued, "Maybe if you use hypnosis that will help, but I don't think it will even if you do hypnotize me. I'll just do the same darned old thing again and again, and I'm so tired of reducing and gaining. It's just a horrible obsession with me. But I don't want any psychiatry used on me."

Further explanation on the patient's part served only to emphasize more clearly what she had already related.

In accord with her wishes hypnosis was attempted, and by the end of the hour a medium trance characterized by a considerable tendency toward spontaneous post-trance amnesia was induced. She was given a second appointment, at which time her history was taken a second time. The details were essentially the same, and she reiterated her firm belief that she would again follow her pattern of losing and gaining weight, and again she sobbed briefly. She also reaffirmed her unwillingness to accept psychiatric help and restricted emphatically any help given her to the problem of her weight. She also declared her intention of terminating her treatment if any attempt were made to deal with her psychiatrically. Repetitiously she promised her full co-operation in all other regards.

A medium trance state was readily induced and she was asked to reiterate her promise of full co-operation. She was also induced to restate repetitiously that in the past her problems had centered around "gaining, losing, gaining, losing, gaining, gaining, losing, losing, losing," and to agree that throughout the proposed course of treatment she would keep this sequence of behavior constantly in mind.

As soon as it was felt that she had accepted these peculiarly but carefully worded statements, the assertion was offered that her treatment this time, "will be the same, yet completely different, *all of your behavior will be used, your co-operation has been promised and will be given, and all of your behavior that you have shown so many times in the past will be used, but this time used to make you happy, used in a different way.*"

When it was certain that the patient knew what had been said to her, even though she did not understand what was meant or implied, she was reminded of the firmness of her resolve to co-operate com-

pletely, even as she had in the past, but this time, she was told, "things" would be "done differently" and therefore successfully and to her entire happiness and satisfaction.

Thereupon, while she was still in a medium trance, it was explained that always in the past she had approached her problem of obesity by setting a goal weight, by losing and gaining weight, by a performance of obsessional weighing, and then setting a second goal of her original overweight. These same items of behavior, it was emphasized, would again be employed but in another fashion and effectively for the medical purposes desired.

The explanation was continued to the effect that instead of letting her terminate her reducing by a process of gaining, the procedure would be reversed. Therefore, she was under obligation, as a part of her co-operation, to proceed at once, and at a reasonable rate, to gain between 15 and 25 lbs. When this gain had been made, she could then begin reducing.

The patient protested vehemently that she did not want to gain but to lose weight, but it was patiently and insistently pointed out that her reducing programs had always included obsessive weighing, losing weight, gaining weight, the setting of goal weights and full co-operation with the physicians. No more and no less was now asked. Finally the patient agreed to abide by the instructions. She was then aroused, and the instructions were explained again. She protested vigorously but slightly less so than in the trance state, and finally she reluctantly agreed to the proposed program.

Most unwillingly she began to increase her weight. When she had gained 10 lbs. she pleaded to be allowed to begin reducing. She was reminded that an increase of 15 to 25 lbs. had been prescribed and this would be insisted upon. As she approached the gain of 15 lbs., she began weighing herself in a repetitive obsessive manner and demanded an appointment immediately when the scales showed the 15 lb. increase. At that appointment it was carefully explained to her in both the trance and the waking states that the prescribed gain had been for a weight between 15 and 25 lbs.

Less than a week later, after much obsessive weighing and eating, which was done with great reluctance, she reported for an interview and hesitantly stated that she had gained 20 lbs. and that this figure was exactly between 15 and 25. She pleaded to be allowed to reduce. Consent was given with the admonition that the loss of weight

must not exceed the average of 3 lbs. a week.

The patient's progress was most satisfactory. She showed none of her previous obsessive weighing as she approached the weight of 125. She had almost at once calculated the date of her goal weight when she had first begun to reduce, but she had been admonished that weight reduction was on a weekly average. Hence, she could only set the week but not the day of achieving the goal weight.

She was seen only at intervals of 3 to 6 weeks. She was always adequately praised for her co-operation in both the trance and waking states, and each time the hope was expressed that no intervening problem would develop to alter the expected week of final achievement.

She forgot her appointment for the final week, but made one for the next week. At that time she weighed 123 lbs. instead of 125. She explained that she had failed to weigh herself regularly and hence did not know exactly when she had reached 125 lbs. She declared her intention to remain approximately at that weight.

In the 9 months that have passed since then, the patient has succeeded comfortably in this resolve. In addition she has developed recreational and vocational interests, particularly golf and a book review club, and she has for the first time in her life participated in social and community affairs.

CASE 3

A physician's wife in her middle thirties sought aid for her obesity in an amused, half-hearted manner. This had begun in her junior year in high school, at which time she weighed 110 lbs., and each succeeding year of life had been marked by a progressive increase to the current weight of 270 lbs.

During the past 13 years she had sought help from one physician after another, but each time failed to secure results. Her explanation was, "Oh, I always co-operate with the diet they put me on. I always eat that and everything else I can lay my hands on. I always overeat, and I suppose I always will. As a forlorn hope, I'm trying you to see if hypnosis will work. I know it won't, but my husband will feel better if I do try it. But I warn you not to expect too much because if I know me, and I think I do, I'll overeat as usual."

Hypnosis was attempted. She developed a medium to deep trance readily, but it was difficult to maintain that depth of trance.

She would repeatedly arouse, laugh, and explain that she was curious why the writer would be willing to waste his time on her in view of her "unfavorable prognosis" of her own behavior. The explanation was offered to her that neither time nor effort would be wasted since it was intended to utilize her own behavior to effect therapeutic results. Her reply was, "But how can there be therapeutic results when you and I both know that I'll eat any diet you recommend and everything else even if I have to make extra shopping trips? I've had too many years of overeating to give it up, and I'm here only because my husband wants me to come. I've always tried to co-operate but it's no use. I know the exact caloric value of any serving of food, but all my knowledge does not keep me from overeating. Even my teen-age daughter's embarrassment about my obesity doesn't keep me from overeating. But I'll play along with you, at least for a while, but nothing will work."

Again she was assured that her own behavior would be employed to produce effective results, and she was asked to redevelop a trance state so that hypnosis could be employed. She declared that she would only awaken herself from the trance state if this were done. Even as she completed her statement she developed a medium to deep trance but almost immediately aroused herself by laughing.

She was then asked to develop and to maintain a light trance and to listen carefully to what was said to her, to understand completely what was said, to go into a deeper trance whenever she wished, or to lighten her trance if she felt so impelled, but, at all events to listen to the entire explanation about to be offered her without interrupting it by arousing from the trance. She agreed to co-operate on this basis.

Slowly, systematically, she was instructed:

1. Your weight is 270 lbs.
2. You know the caloric values of any food serving.
3. You always have and always will overeat.
4. Your own behavior has always defeated you in the past.
5. Your own behavior will be used this time to effect therapeutic results. This you do not understand.
6. You will co-operate as you always do and you will also overeat. (The patient first shook her head vigorously at this, then

sighed and slowly nodded her head affirmatively.)

When it was felt that she understood these instructions adequately, she was given the further instructions:

1. You now weigh 270 lbs., not 150 or 140, but 270 lbs. You not only will overeat but you need to eat excessively in order to support that poundage.

2. Now bear this in mind and co-operate fully: During this next week overeat, *doing so carefully and willingly*, and overeat enough to support 260 lbs. That is all you need to do, overeat sufficiently to support 260 lbs. Now I am going to arouse you and dismiss you with no further discussion or even comments. You are to return at this same hour one week from today.

She was seen again a week later. Her opening remark was, "Well, for the first time in my life I enjoyed overeating, and I checked on my husband's office scales today, because I don't trust our bathroom scales. I weighed 260 lbs. too, a few ounces less in fact, but I call it 260 lbs."

A trance was induced again, light in character, and she was again similarly instructed, but this time to overeat sufficiently to support 255 lbs. and to report in another week's time. On that occasion, a new goal was established at 250 lbs.

On the next visit she hesitantly explained that she and her husband were going on their annual two weeks' visit at her parental home, and that "I always gain on my mother's cooking, and I hesitate to go this year, but I see no way out of it."

In the trance state she was asked what weight she ought to overeat sufficiently to support on this two-week holiday. She answered, "Well, we'll really be gone 16 days so I think I ought to eat enough to weigh a good fat 238."

She was emphatically told that she was to overeat sufficiently to support 238 lbs. and also sufficiently to gain 3, 4, or even 5 lbs.

She returned from the trip jubilant, weighing 242 lbs., and stated happily, "I did just as you said. I gained 4 lbs. This is a silly game we are playing, but I don't care. It works. I like to overeat and I'm so grateful that I don't overeat as much as I used to."

A variation was introduced into the procedure by insisting that she maintain her weight unchanged on two occasions for a

two-week period. Both times she reacted with impatience, declaring "That's too long a time to overeat that much."

In six months' time she has reached the weight of 190 lbs., is enthusiastic about continuing, and is in the process of window-shopping for "something that will look good on a chubby 130 or 140."

SUMMARY

The medical problem for each of these patients was the same, a matter of weight reduction, and each had failed in numerous previous attempts. By employing hypnosis a communication of special ideas and understandings ordinarily not possible of presen-

tation was achieved in relation to personality needs and subjective attitudes toward weight reduction. Each was enabled to undertake the problem of weight loss in accord with long-established patterns of behavior but utilized in a new fashion. Thus, one patient's pleasure in eating was intensified at the expense of quantity, a change of sequence of behavioral reactions led to success for the second, and a certain willfulness of desire to defeat the self was employed to frustrate the self doubly and thus to achieve the desired goal.

BOOK REVIEWS

Merton M. Gill, M.D., and Margaret Brenman, Ph.D. *Hypnosis and Related States: Psychoanalytic Studies and Regression*. New York: International Universities Press, 1959. Pp. 405. \$7.50.

Robert Reiff, Ph.D., and Martin Scheerer, Ph.D. *Memory and Hypnotic Age Regression: Developmental Aspects of Cognitive Function Explored Through Hypnosis*. New York: International Universities Press, 1959. Pp. 253. \$5.

(The following review is reprinted from the *Journal of the American Medical Association* for February 27, 1960, with the permission of that journal. A footnote to the review section of the journal states, "These book reviews have been prepared by competent authorities but do not represent the opinions of any medical or other organization unless specifically so stated.")

These two books have in common the publisher, time of issuance, general subject matter, and special emphasis on hypnotic regression. For this reason they will be reviewed in relation to each other. The statements on their cover jackets are in marked contrast. The second book is described simply and modestly as a carefully made scientific, theoretical, and experimental study based on certain procedures and yielding results of value in developing further research. Such a description should constitute an invitation to read and learn.

The statements describing the first book are of another character. The tripartition of the title into "Hypnosis," "Related States," and "Psychoanalytical Studies in Regression," with the third part as a subtitle, causes doubt as to the major content of the book, in view of the inherent difficulties of co-ordinating such divergent topics. One must consult the book itself to discover the actual emphasis of meaning in the title. The front inside flap offers a description of the book's content as the psychoanalytical "interpretation of data gained in an extensive research project on hypnosis. They [the authors] re-examine their basic frame of reference, clarify some of its assumptions" and thus "make a genuine contribution not only to the understanding of the variety of hypnotic phenomena but also to the nature of regression." No clarifying statement is suggested as to how all this is done. There is the added statement, "The breadth and scope of this book are evident from the areas which are extensively covered." There follows a 20-item listing. Some of the items are fugues and multiple personalities and hypnosis; brain

washing and hypnosis; Balinese trance states and hypnosis; structure of the ego and its subsystems; and five metapsychological points of view in psychoanalysis. Since all this is to be covered in 374 pages, the description tends to imply superficiality and inadequacy.

"Memory and Hypnotic Age Regression," an investigative study of memory by means of hypnotic regression, is written so that it is interesting, stimulating, and informative to the psychologically trained and to the lay reader. The survey of literature is pertinent and comprehensive, and divergent views are carefully appraised and objectively presented. The first three chapters discuss lucidly (1) static and dynamic conceptions of memory, together with environmental and experiential significances, (2) forms and kinds of memory and reconstruction and developmental considerations, and (3) hypnotic age regression in relation to hypermnnesia, regressive phenomena, validity of manifestations, and cognitive functioning. Each of these chapters is explanatory and definitive. They clarify the nature of the total study, the available background of scientific studies, and the various divergent conceptual understandings. Of particular interest is the scientific consideration given to psychoanalytical concepts and formulations, something greatly needed and in marked contrast to the adulatory, dogmatic presentation of similar material in the other book.

The fourth chapter is a systematic evaluation, in terms of the possibilities indicated by the past experimental work of others and the thoughts of the authors, of the problems of method, technique, and validity of procedure in presenting tasks, inducing trances, and selecting subjects. The next chapter adequately states the method of investigation in relation to hypotheses, general procedure, and the rationale for the experimental treatment of data. The sixth and seventh chapters present the experiments on emotional and cognitive functioning by a series of ingenious and revealing tests, the experiments on contextual recall by questionnaires, and an appraisal of the validity of experimental findings, including recall of forgotten skills. The results in both types of experimental investigation clearly indicate hypnotic regression to be a valid phenomenon of significant value in the study of memory.

Chapter 8, Methodological Considerations, discusses these experiments in both retrospect and prospect, emphasizing the often overlooked importance of how experimental results are obtained rather than simply their failure or success. The last chapter discusses theoretical considerations in terms of past efforts to theorize and the opportunities offered by the experimental findings reported for new theoretical and experimental approaches to memory and related problems of neurophysiology. The bibliography is well selected and representative, and the book is indexed.

"Hypnosis and Related States" is a disappointing book. It is neither a study of hypnosis, nor a study of related states, nor a psychoanalytic study of regression. It is simply a laborious effort to translate into psychoanalytic terms and theories, by means of simple dogmatic assertions, the authors' various random observations on hypnosis. For example, on page xxiii of the introduction, the following statement appears:

"Our definition of hypnosis is an attempt to integrate the ego-psychological concepts just outlined with the usual view of hypnosis as transference. *The hypnotic state is an induced psychological regression, issuing, in the setting of a particular regressed relationship between two people, in a relatively stable state which includes a subsystem of the ego with various degrees of control of the ego apparatuses.* Obviously this definition is a highly condensed statement, each part of which requires considerable elaboration, a task we undertake in Chapter 5, devoted to the metapsychological theory of hypnosis."

Their own observations of hypnosis, they state, were made incidentally, for the most part, during the long-time therapy of psychiatric patients, on some of whom hypnosis was either attempted or briefly used as an adjuvant therapy. No body of either experimental or observational data is presented. The bibliography, extensively quoted throughout the book, is primarily psychoanalytical in character. The literature

on hypnosis, particularly of the last 10 years, has been largely neglected. Examination of the excellent index discloses that posthypnotic suggestion, a major hypnotic phenomenon, is mentioned twice and discussed once in a brief paragraph on page 104. Ego apparatuses, an undefined speculative psychoanalytical concept, receives mention more than 40 times and many paragraphs of discussion.

Evelyn Lancaster (pseud.) with James Poling. *The Final Face of Eve*. New York: McGraw-Hill, 1958. ix + 290 pp. \$4.50.

By William S. Taylor, Ph.D.

In 1957 the psychiatrists Thigpen and Cleckley published *The Three Faces of Eve*, later presented in a motion picture of the same name. Their book gives a most readable history of the case up through the third personality's marriage. That book also discusses theories and reports the neurological and psychological tests used. *The Three Faces of Eve* remains, I think, the most scientific introduction to what we can learn from multiple personality.

The Final Face of Eve is written by the patient with a collaborator. It hardly mentions the tests and presents only the most relevant theory. This book is based, however, on the recovered memories, the psychiatrists' records and comments, and observations and reflections by all concerned. It is a fuller history, carrying the record through the apparently final integration of the individual, and it is illuminating throughout.

When the authors say that "no previous patient has ever told his personal story" (p. ix), they share the current ignorance of Morton Prince's works, especially his *Clinical and Experimental Studies in Personality*. *The Final Face of Eve* significantly confirms and supplements the earlier studies of the causes, phenomena, and implications of multiple personality.

ABSTRACTS OF CURRENT LITERATURE

Edited by Bernard E. Gorton, M.D.

59. González, Lucas I. Neurosis y caries. [Neurosis and caries.] *Revista de la asociación odontológica*, 1959, 4, 121-123.

In the light of what is now known of the interreaction of psyche and soma and in view of the application of this understanding in medicine to various pathological entities, the author proposes that dentistry should cease considering tooth decay a purely oral disease in origin and manifestation and begin to think of it as a non-specific general syndrome. Observations are summarized of a number of authors who have found a clear relationship between psychic disturbances and dental caries. (H. D. Prensky.)

60. Chen Espinosa, Adolfo. Psicología aplicada. Hipnosis en la práctica dental. [Applied psychology. Hypnosis in dental practice.] *Anales españoles de odontostomatología*, 1959, 5, 388-398.

Suggestion in general plays an extremely important role in the dental office. The most effective way of utilizing it is through hypnosis. Post-hypnotic suggestion which is useful in practically all aspects of dentistry has demonstrated particular value in the conditioning of patients to use a prosthetic appliance. The most important disadvantage in incorporating hypnosis into dental office procedures is the scarcity of easily hypnotized persons (estimated by the author at 1 in 10) and the consequent length of time required. To minimize this difficulty, the author recommends employing the services of professional hypnotists to condition the patient for dental treatment. Six case histories are presented out of a total of 30 interventions with hypnosis by the writer since 1959, the majority successful. (H. D. Prensky.)

61. Muñoz Sánchez, Raimundo. Hipnotismo. [Hypnotism.] *Anales españoles de odontostomatología*, 1959, 10, 792-795.

The author considers hypnosis superior to psychoanalysis for learning what takes place both in the conscious and unconscious minds and for getting to the basic causes of a pathological process. He describes briefly the technic he uses and states that in the treatment of many emotional conditions hypnotherapy can very easily be substituted for therapeutic suggestion now given in the normal waking state. It is pointed out, in conclusion, that the Roman Catholic Church does not oppose the practice of hypnosis in the healing professions. (H. D. Prensky.)

62. Meldman, M. J. Personality decompensation after hypnotic symptom suppression. *J. Amer. med. Assn.*, May 28, 1960, 173, 359-361.

A patient with severe emotional problems in childhood and a history of incomplete psychotherapy for a disturbed episode in adult life sought hypnotherapy for a recent symptomatic development. This was given without regard for the other concurrent symptomatology, which became more accentuated as the more recent symptom was ameliorated. This led to treatment by a second therapist (the author), who encouraged the patient to employ suppressive-repressive measures and thus to return to the pre-hypnotherapeutic state of precarious adjustment. (M.H.E.)

63. Weiss, R. L., Ullman, L. P., & Krasner, L. On the relationship between hypnotizability and response to verbal operant conditioning. *Psychol. Reports*, 1960, 6, 59-60.

An indirect measure of hypnotizability derived from the California Psychological Inventory was correlated to responsivity to verbal operant conditioning. "A positive and statistically significant relationship was found between a scale of likelihood of hypnotizability and responsivity to verbal operant conditioning." (A.M.W.)

64. Doberneck, R. C., & others. Hypnosis as an adjunct to surgical therapy. *Surgery*, 1950, **46**, 299-304.

The authors have selected 99 patients from a group of 105 patients treated by hypnosis. The cases discussed were all followed at least 2 months. They include 32 postgastrectomy syndromes, 31 cases treated for postoperative pain, 11 obesity cases, 17 cases of bizarre forms of pain, and 8 hypnoanesthesias. In general the results have been favorable. There have been definite failures as well as outstanding successes. Obesity cases were found to represent the most difficult group to treat. (A.M.W.)

65. Levitt, E. E., Lubin, B., & Zuckerman, M. Note on the attitude toward hypnosis of volunteers and nonvolunteers for an hypnosis experiment. *Psychol. Reports*, 1959, **5**, 712.

Card 12M of the TAT was administered to a group of individuals prior to requesting volunteers for an experiment in hypnosis. No differences in attitude between volunteers and nonvolunteers were found. (A.M.W.)

66. Levitt, E. E., & Grosz, H. J. A comparison of quantifiable Rorschach anxiety indicators in hypnotically induced anxiety and normal states. *J. consult. Psychol.*, 1960, **24**, 31-34.

"Rorschach records were obtained from 12 carefully selected, normal individuals in the waking state, in hypnosis, and in hypnotically induced anxiety. Appropriate analysis of 25 quantifiable Rorschach factors indicate that decrease in W and F+, and increase in Sum Y, reaction time of first response, and incidence of M- reflect the anxiety state. An increase in FM was found to characterize the hypnotic state per se, but not the anxiety state." (A.M.W.)

67. Bonello, F. J. Hypnosis in general practice. *Minn. Med.*, 1959, **42**, 915-921.

The author, after reviewing various theories of neurotic behavior, discusses various applications of hypnosis in medical practice with reference to specific cases. Hypnotherapy in general medical practice will be primarily limited to the treatment of disorders in which symptoms play minor defensive roles. The techniques to be used in hypnosis are the same as those to be used without hypnosis: reassurance, re-education, persuasion, direct symptom removal, psychobiologic treatment, and reconstructive psychotherapy. For the most part, however, in general practice, hypnotherapy will be confined to symptom manipulation, re-education, persuasion, and reassurance. The author is of the opinion that the objections to symptom removal voiced by psychiatrists are not realistic, and he believes that hypnosis may be used both in the treatment of functional and organic disease. He specifically discusses the use of hypnosis in psychoneurosis, epileptoid seizures, musculo-facial syndromes, in surgery, and in obstetrics. (A.M.W.)

68. Abramson, M. Danger! Hypnotherapist at work. *Bull. Hennepin Co. med. Soc.*, 1960, **31**, 101-106.

The author reviews briefly pros and cons regarding the medical use of hypnosis. He concludes: "It is the author's opinion, based on an extensive personal experience of over 15 years, that the use of hypnotherapy by a physician or dentist who has been properly trained and who uses this technique strictly within his field of competence carries with it no more (and probably) less 'danger' than the use of many other techniques of treatment used in medicine today." (A.M.W.)

69. Persky, H., Grosz, H. J., Norton, J. A., & McMurtry, M. Effect of hypnotically induced anxiety on the plasma hydrocortisone level of normal subjects. *J. clin. Endocrin. Metab.*, 1959, **29**, 700-710.

The authors report finding an elevation of the plasma level of hydrocortisone following the induction of anxiety states during hypnosis. Hypnosis alone was found associated with a significant reduction in hormone level in both male and female subjects. (A.M.W.)

70. Monroe, R. R., Lathrop, D. D., Cohen, S. B., & Miller, E. C. Teaching medical hypnosis. *J. med. Educ.*, 1960, **35**, 342-351.

The authors describe in considerable detail a course in medical hypnosis which they gave at Tulane University School of Medicine in 1958-59. They discuss both the strengths and weaknesses of this course. (A.M.W.)

71. Wright, M. E. Hypnosis and rehabilitation. *Rehab. Lit.*, 1960, **21**, 2-12.

The author begins by giving a brief survey of the history of hypnosis. This is followed by an equally concise review of present day factual knowledge of hypnotic phenomena and of accepted hypnotherapeutic procedures. The author then turns briefly to the applications of hypnosis to rehabilitation, which he conceives in a broad sense to include the diagnosis, treatment, and social readjustment of the individual as well as a broad prophylactic aspect. Hypnosis finds a place in rehabilitation "because of its potentials for initiating and facilitating various kinds of psychological changes." The article includes a 278-item bibliography primarily concerned with hypnotherapy, but also including references to general works on hypnosis and to the pertinent experimental literature. (A.M.W.)

72. Moore, M. R. Hypnosis and medical practice. *Dis. nerv. Syst.*, 1960, **21** (Suppl.), 1-5.

This article begins with a brief review of the historical antecedents of medical hypnosis. The rest of the article is devoted to a general discussion of the pros and cons with regard to using hypnosis in medicine. Hypnosis is seen by the author as a normal psychological state of being unconsciously attentive to suggestions and ideas. All one does in using hypnosis is to present ideas to the patient which he can use to attain his goals. If they are incompatible with his personality he will not accept them. Thus there is no more danger in using hypnosis than there is in any other strong interpersonal relation which may arise between two individuals. The author emphasizes that unless a physician is adequately trained in psychiatry he should not attempt to treat personality problems which arise in the course of a patient's efforts to maintain his psychic equilibrium. Symptoms should not be removed when they are utilized by the patient as a protective device or as a means to satisfy certain other needs. On the other hand, it is permissible for the physician to encourage a patient to give up a symptom, and the use of hypnosis for relaxation, anesthesia, the control of lactation, and childbirth are among the best ways of using hypnosis in daily practice. A small number of cases is described to exemplify certain procedures and uses. (A.M.W.)

73. Schneck, J. M. Symptom relief, authority substitution, and suggestibility, with special reference to hypnotherapy. *Dis. nerv. Syst.*, 1959, **20**, 1-4.

In this article the author takes a middle-of-the-road approach to the question of symptom removal. This is discussed within the framework of therapy both with and without hypnosis. The relationship between relief from symptoms and the attainment of insight is not as clear-cut as may be supposed. Furthermore, contrary to popular belief, symptom removal, no matter what method may be used, is by no means always easily obtained. The use of persistent pressure tactics to force symptom removal is always to be frowned upon. On the other hand, there are symptoms which can be easily relinquished but which in spite of this may be associated with major personality reorganization. In any form of therapy the establishing of a transference relationship can in itself have a strong therapeutic effect. Some individuals have a need for the substitution of an authority in the place of another, and accomplishing this may be a major step in therapy. These are aspects which have not been sufficiently recognized in connection with any form of therapy, including hypnotherapy. Degree of suggestibility is not always positively related to therapeutic effectiveness. The patient's reaction "to conscious and unconscious awareness of his suggestibility, and his need or willingness to accept or reject this aspect of his personality functioning" are important determinants of the outcome of hypnotherapy. There is a strong interdependence between symptom relief, authority substitution, and suggestibility. (A.M.W.)

74. Marchand, H. Der hypnotisch verlängerte Schlaf als Hilfsmethode der konservativen Tuberkulose-behandlung. [Prolonged hypnotic sleep as an adjunct in conservative tuberculosis therapy.] *Psychotherapie*, 1956, 1, 198-211.

Prolonged hypnotic sleep was induced in tubercular patients so that they slept on an average 17 hours daily for three weeks. Fractionation induction procedures and the establishment of a conditioned reflex to a sound signal were employed to establish the hypnotic sleep. No drugs were needed. Very good results were noted in 17 cases, 6 cases were improved, 8 improved but later relapsed, and 4 failed to benefit or became worse. (B.E.G.)

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